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MONEY AND BANKING

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MONEY AND BANKING

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PREFACE

There are many excellent manuals treating of the history and principles of money, of credit, and of the history, principles and practices of banking, but the author has not found any single book which presents in a concise way the whole general subject of money and banking, so arranged as to make it suitable for use as a textbook. The curricula of many schools and colleges limit the time given to the study of this subject to one year, and there has long been a demand for a textbook presenting the essentials of money and banking in such a way that it could be covered in that time. It is hoped that this book may in some measure meet this need.

It is designed primarily to serve as a textbook for students beginning the study of money and banking in colleges and universities, for advanced classes in commercial high school and academy courses, and for the growing number of young business men who in group study courses and in university evening classes are pursuing studies in this field. It is hoped, however, that it will prove helpful to the general reader and to the business man desiring to gain a better understanding of monetary and banking questions. Since the book is intended as an introduction to the subject, and is written for the general reader as well as for the student,

controverted points in monetary science have been avoided as far as possible, or, if not avoided, have been pointed out as debatable ground and the reader has been referred to other works on these questions.

The treatment of Money in Part I follows in a general way the lines made familiar by other standard works to which frequent references are made in the footnotes and in the suggested reading lists at the end of each chapter. The effort has been made to compress this part of the book into the smallest space consistent with a presentation of essentials in the history, theory and principles of money, leaving the major part of the book for the discussion of the principles and practices of banking. In the chapters devoted to banking organization and practice it has been impossible to give consideration to the varying local customs and practices of different types of banking institutions. The aim has been to describe those principles and practices of commercial banking that are common to all banks.

Though the new Federal reserve system introduces far-reaching changes in our banking and currency system, many years must elapse before its full effects can be definitely measured. Throughout Part II frequent reference is made to various provisions of the Act of 1913, and Chapter XXII is devoted to an analysis of its leading provisions, and a summary of the steps taken in the establishment of the new system. A proper understanding of the new system, however, can be gained only by following its operations and marking the effect of changes that will certainly be made in the law from time to time. It is believed that the addition of the complete text of the Federal Reserve Act (Appendix) will prove a great convenience to both student and general reader.

Space forbids specific mention of the many writers and bankers to whom I am indebted for help in the preparation of this book. At the end of each chapter are lists of books

for collateral reading and throughout the text are footnote references to writings upon which I have freely drawn. To these authors and publishers, and to the many bankers who have supplied suggestions and illustrations, I beg to make grateful acknowledgment.

J. T. H.

September, 1914.

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MONEY AND BANKING

PART I. MONEY

CHAPTER I

MEDIUM OF EXCHANGE

1. Division of labor and exchange.—The study of money credit and banking is a division of the science of economics. Economics is the science which treats of the production, distribution, consumption and exchange of wealth. In other words, it is the science which deals with man in his business relations. Wealth is the general economic term used to include all things which satisfy human wants or which, as the economists say, have the quality of utility. In the production of wealth three primary factors are involved—land (including all natural resources), labor and capital. Economists now generally recognize a fourth factor, the entrepreneur or enterpriser, who brings together the other factors in the productive process.

The coöperation of these factors through the division of labor is a fundamental characteristic of modern industrial society. The progress of civilization, especially since the Industrial Revolution of the latter part of the eighteenth century with its introduction of machinery and power, has been marked by an ever increasing subdivision of labor and by greater specialization of employment. In a primitive society each family or community provided for itself the simple necessaries of life—food, clothing, shelter. But to-day it would be hard to find among civilized peoples either a family or a community that attempts to supply all its own needs. In earlier days the village shoemaker made with his hands and a few simple tools a complete pair of

shoes, but now he buys shoes for himself and his family made in a factory where many machines, operated by scores of workmen, each performing a special operation, turn out several hundred pairs of shoes a day. Like subdivision of labor and specialization obtains in all lines of modern industry. Even the farmer, the most nearly self-sufficient of all producers, sells grain and buys flour, sells cattle and buys meat, and depends upon others to supply most of his needs. Indeed very few of the world's workers are engaged nowadays in producing things for their own use or consumption. Most of the wealth produced is intended to be exchanged. Our whole economic structure is based upon the exchange of goods and services. This process of exchange involves the economic phenomena of value, price, money, and the whole mechanism of exchange.

2. Barter.—Division of labor and exchange of goods have existed in some form almost from the beginning of organized society. In a very early stage people found by experience the advantage of each worker devoting himself to the production of certain things in which he was most skilled. The primitive fisherman whose preference or skill led him to follow fishing would frequently have a surplus of fish. Another man might be particularly adept in making spears, but as he did not need for his own use all that he could make he was glad to exchange his surplus for other things he needed, such as fish or skins. This system of exchange, known as barter, was crude and clumsy. The man with a surplus of fish had to find someone with a surplus of spears or furs which he was willing to exchange for fish. Even then the terms of the trade were difficult to arrange. A spear was worth more than a fish, but it could not be divided; so to effect a trade the owner of the spear would be compelled to take more fish than he needed. Under a system of barter the difficulty increases with the number of articles to be exchanged. Without any common measure of value each trader would have to remember the value ratio between each article and all others offered in trade. Thus if he dealt in ten commodities he must remem-

ber forty-five ratios of exchange, but with a standard of value only nine ratios would be involved.

3. Money.—In the course of time it appeared that among the numerous articles exchanged, there was one which nearly everybody wanted—shells, furs, grain, tobacco, or metals. Gradually men recognized that this commodity was the best thing to accept in exchange for what they had to sell, for it could be exchanged later on for other products or services. In the case of our Indian tribes, for example, shell beads were admired and prized by all. It is easy to understand how some members of the tribe might devote most of their time to hunting for the shells and making them into strings of beads which were in universal demand for personal adornment. A part of their stock of beads would be exchanged for food and other needs. A man who had a surplus of food would gladly exchange it for beads even though he had no particular desire for more beads. He would be better off with a surplus of beads than with a surplus of perishable food, for beads were always in demand. Thus, by unconscious selection, certain commodities came to be recognized as best fitted to serve the purpose of a go-between in making exchanges. In some such way the use of money began.

Exchange, then, may assume either of two forms: direct exchange, called barter, where commodities or services are directly exchanged one for the other; and indirect exchange by means of some article of general acceptability and convenient subdivision called money. Money is a commodity, to be sure, but when it is exchanged for other commodities or services the process is not called barter. We term this process buying and selling. It is an exchange of goods for goods by the use of an intermediary. Thus, money represents an incomplete or suspended exchange. We willingly accept money for goods, not because the money itself gives us pleasure, but because we know we can exchange it in turn for the various things that will satisfy our wants.

4. Credit.—We have seen how money came to displace the crude and clumsy barter system, making possible that

division of labor and specialization which marks modern industrial society. In time, however, as exchanges increased in number and magnitude, the carrying and counting of money became burdensome. Men who had frequent dealings with one another began to keep accounts and to sell goods without demanding immediate payment of money, agreeing rather to settle balances at certain intervals. Thus credit was introduced.

Credit is a postponed money payment. It is a promise to pay money or its equivalent at some future time. Fundamentally money and credit are not two different things; credit is merely the name given to a common and important use of money, a deferred payment of money. A steel manufacturer sells a machine to a customer and agrees to give him sixty days in which to pay for it. The implication here is that it will be paid in money, and the promise to pay is regarded as the full equivalent of the thing being sold. If the promise to pay is put in the form of a promissory note, it immediately becomes a valuable medium of exchange. The manufacturer can transfer ownership in the note or title to it to a banker or someone else, and so it may pass from hand to hand in satisfaction of many exchanges. But credit has value as a medium of exchange only as it is convertible into money or its equivalent.

It must not be inferred from this brief statement of the evolution of exchange that nations or peoples have consciously passed through these three economic stages, barter, money and credit. Some of the very early civilizations used money and even credit of a simple kind as well as barter in their trading. On the other hand, the economies of money and credit have not wholly displaced barter in our own day. In many rural sections of the United States the custom still obtains of taking such farm products as butter and eggs to the country store to be "traded" for groceries and other domestic supplies, and payment of labor "in kind" is still quite common. But in a general way it may be said that the evolution of society from a primitive to a higher civilization has been accompanied by

an evolution of the system of exchange from simple barter to the complex credit system of to-day.

5. Evolution of money.—Various commodities have been used as money in different stages of economic development. In early times, the article which came to have wide acceptability and use as a medium of exchange was sometimes a necessity of life—rice, tea, tobacco; sometimes an ornament, like beads; or, again, a weapon. Among savage people, most of whom have an extravagant love for ornament, rare shells, beads and skins have served as money. When the first settlers came to America they found the Indians using "wampum" or "peag" as a medium of exchange. It consisted of strings of beads made from sea shells. The beads were of two colors, black and white, the black beads being worth twice as much as the white. These beads were polished and made into strings or belts to be worn as ornaments. A fathom of wampum consisting of 360 white beads was worth 60 pence, or three beads to a penny. In carrying on the fur trade with the Indians, the colonists found it convenient to use this wampum as money. It was always exchangeable for beaver belts, which in turn found ready sale in Europe. Owing partly to the decline of the beaver trade and partly to the practice which grew up of dyeing the white beads black, wampum gradually fell into disuse. This form of money lingered in some of the colonies, however, until the beginning of the eighteenth century.

In the pastoral stage of civilization, sheep and cattle, or their products, hides and skins, performed some of the functions of money. The origin of such words as capital, pecuniary, chattel and fee is probably traceable to those early times when cattle were used as money. The ancient Hebrews and their contemporaries reckoned their wealth by the ownership of flocks and herds. It is probable, however, that sheep and cattle served as a measure of value rather than as a medium of exchange. Jevons notes that in the poems of Homer "oxen are distinctly and repeatedly mentioned as the commodity in terms of which other objects are valued." Classical writers record the use of leather

currency among the Romans and Carthaginians, and leather money is said to have been used in Russia as late as the time of Peter the Great.[1]

In the next stage of economic progress, the agricultural, such products as wheat, corn, rice and tobacco were used as media of exchange. The American colonists were compelled at first to buy from England most of the manufactured articles they needed. Because of the scarcity of metallic money with which to pay for imports, they had to export goods readily salable in the markets of the Old World. In Virginia, tobacco was the most available product and it soon came into general use as money. Planters were obliged to store their tobacco in warehouses controlled by the British government, receiving for it "tobacco receipts," which for some time constituted the only money seen in the colony. Practically all financial transactions were expressed in pounds of tobacco; and clergymen and school teachers were paid in tobacco. Fluctuations in the price of tobacco wrought great hardships and inequalities from year to year. As soon as it was generally recognized in a community that a particular article could be sold at any time it took on a new function. Quite aside from its usefulness as an article of consumption, it became the medium of exchange and the measure of value of all other commodities; in short, it became the money of the community.

All the forms of money mentioned, however, though they served the crude needs of a primitive society, were more or less inconvenient. The supply of corn or tobacco was quite uncertain. Their value fluctuated from year to year, according as the crop was poor or abundant, and they deteriorated greatly when stored. Cattle and sheep had the disadvantage of large value in each single animal, and also of perishability. Even hides, skins and furs were too large to pass about or possessed too high a value to serve in making exchanges of small amounts.

6. Metallic money.—By experience men finally learned

[1] Jevons: Money and the Mechanism of Exchange, p. 20.

that the metals were best fitted to serve as a medium of exchange. Metallic money in some form was used at a very remote time in the world's history. Recent excavations in Egypt, Greece, Babylon and elsewhere have brought to light coins that were in use among these ancient peoples. It appears that at first the baser metals, like iron, tin and bronze, were used. Ancient Greek and Latin writers mention lead as having been used as currency. In this country the Massachusetts settlers used lead bullets for change, at the rate of a farthing each. In the days of the Roman Emperors, series of tin coins were issued, and tin halfpence and farthings were used in England as late as 1691. Copper has been used as money in all ages. The early Hebrews used copper coins chiefly, and the Roman coins were made of copper until displaced by silver. Because of its low and fluctuating value, however, it is unfitted for money, except in coins of small denominations. Nickel is used at the present time as an alloy with other metals. Belgium, Germany and the United States use it in their coinage. One objection to it is the wide fluctuation in the price of the crude nickel. Platinum, one of the comparatively rare metals, found principally in the Ural Mountains, has been experimented with by Russia. It possesses great density and durability and it is slow to tarnish. A few years' experience with it, however, led the Russian government to abandon its use as money. Because of its relative scarcity the value of the metal is unstable; furthermore, the cost of making the coins is very high, owing to the extremely high point at which platinum melts.

Gradually, as the standard of life and the level of prices rose and a more valuable unit came to be needed, the cheaper and heavier metals were displaced by silver and gold, which are in use as money to-day in every civilized nation in the world. Gold does not admit of division into coins small enough for pocket change, so silver and some of the baser metals, like nickel and copper, are used in coins of small denominations. A consideration of the qualities which a good medium of exchange should possess will

show why gold has been adopted as standard money practically all over the world.

7. Qualities of a good medium of exchange.—The first requisite in any commodity which is to serve as money is that it shall be something in unfailing demand, something having wide acceptability. It must exist in sufficiently large quantities to meet the needs of exchange or trade, yet not so abundantly as to lose its desirability. Money should be durable so that it will not lose its exchange power through decay or deterioration. The notes issued against tobacco in Virginia could not be kept safely for more than a year owing to the deterioration in the value of the stored tobacco. The commodity to serve as money must admit of division into small units in order that it may be used in transactions involving small amounts. Many commodities of varying values are constantly being offered in exchange for money. It must be able to accommodate itself equally to the purchase of a paper of pins and of a horse. The medium of exchange should be homogeneous or uniform, that is, all parts or units of it should have uniform value. It should also be portable; it should have large value in small bulk so that considerable amounts of it can be carried conveniently from place to place. The lack of this quality of portability was one of the chief drawbacks to the use of the beaver pelts of New England and the tobacco money of Virginia. There was a difference of as much as ten shillings per hundredweight in the value of tobacco notes, according to the location of the warehouse where the tobacco was stored. Another requisite of a good medium of exchange is cognizability. It must be something that is easily recognized by its color, form, weight, or other distinctive qualities. Metal coins which can be stamped or certified as containing a certain weight of metal of a certain fineness meet this requirement fairly well. Originally gold and silver coins passed by weight, but the stamping of coins with their money value saves weighing and examination at each transfer and makes it more difficult to circulate counterfeit money. Finally, a good medium of exchange should

have stability of value, so that when contracts are made involving the payment of money in the future, both parties will feel assured that they will have the same absolute and relative position to each other at the end of the contract as they had at its beginning. Most commodities that have been used as money have lacked this important quality of stability. Even gold fails to retain perfect stability of value. It is subject to less fluctuation in value than most other commodities, however, and so is best suited to serve as standard money.

Long experience has shown that gold and silver possess these desirable qualities in a larger measure than other commodities; consequently they have come into universal use as money. Because of their beauty and luster they have always been in demand for ornamental and decorative purposes. Gold and silver are fairly durable; and their durability as coins is increased by mixing with them some harder metal, such as nickel or brass. They are readily subdivided to make coins of different denominations, and they are easily recognized. They have large value in small bulk and can be carried about on the person or be transported in large amounts with little difficulty or expense. Finally, gold and, to a lesser degree, silver have a greater stability of value than most other commodities because of the comparatively limited supply and the elasticity of demand for them. Though great quantities of gold and silver are produced each year, the cost of production remains comparatively high and the annual addition to the world's total supply is comparatively slight. On the other hand, the demand for gold is very elastic. In addition to the world-wide and constant demand for it as money, it is widely used in the arts, in dentistry, book-making, and for other non-monetary purposes. Doubtless "the continued use of gold and silver for money rests very largely on convention, not on the intrinsic factors of beauty and scarcity. Once established as the money metals, they retain their position to a great degree by force of custom. . . . The fact that gold and silver are used as money keeps up their

value; the fact that they are valuable gives them utility for display; and this in turn serves to sustain their value for monetary as well as for non-monetary uses." [1]

8. Coinage.—The practice of coining money began some hundreds of years before the Christian era, probably about 900 B.C. It is supposed that the first coins consisted of a certain quantity or weight of metal stamped with some seal or symbol indicating their weight so that they would not have to be weighed at each exchange. The English pound sterling was originally a pound weight of silver. Other familiar examples of coins which represent weights are the Greek talent, the Jewish shekel and the French livre. The earliest coins were stamped only on one side, and they were not so designed as to prevent alteration. Accordingly, unscrupulous merchants began to stamp smaller quantities of the metal and to pass it as full weight. This deception and the practice of clipping or otherwise subtracting parts of the coin lead to more careful and elaborate coinage. The whole face of the disc was stamped on both sides and the name of the authority certifying the weight was inscribed on the coin. Strict laws were enacted forbidding the mutilation of coins. About the middle of the seventeenth century England began to serrate the edge of coins, a process called "milling."

At first pure metal was used in gold and silver coins. In this form, however, they abraded or wore away rapidly with frequent handling, so it became customary to add to the pure metal some harder metal called "alloy." Dishonest traders then began to make coins with less of the precious metal and more of the cheap alloy. Hence, it became necessary to indicate in some authoritative way the fineness of the metal as well as its weight. Most countries now make their gold and silver coins nine-tenths fine, that is, nine parts of pure metal to one part of alloy, usually copper. Gradually the right to coin money was restricted to a few reputable persons, and finally it was brought under governmental control. Even when the right of coin-

[1] Taussig: Principles of Economics, Bk. I, p. 229.

age was restricted to the sovereign, abuses continued. For many centuries the royal authority debased the coinage by reducing the weight and increasing the amount of alloy of the coins issued under royal decree. Thus, the English pound sterling, which originally contained a pound of silver, was reduced finally to about half that amount.

The early American colonists were greatly embarrassed in their business transactions by the lack of "change" or coin. The small supply of coin they brought with them was soon drained off to Europe to pay for imports. Wampum, the currency of the Indians, was clumsy and poorly adapted to the purposes of general trade. They had to resort largely, therefore, to barter or to the use of staple commodities, called "country pay." To establish a basis of value in exchange, the General Court of Massachusetts fixed the price of all commodities by law, which led to great confusion and dispute as to the value of different articles.

After the colonists had begun to trade with the West Indies, Spanish dollars current in all the possessions of Spain, were imported and came into wide circulation. The Spanish dollar or "piece of eight," as it was called, was subdivided into eight reals, valued at $12\frac{1}{2}$ cents. These coins, however, were not of uniform value in the different colonies. The eighth part of a dollar was a shilling in New York, 9 pence in New England and Virginia, and 11 pence in Pennsylvania. Moreover, these coins had been debased by clipping and sweating, and when they were sent to England in exchange for goods, they were received only at the actual value of the metal in them. The coins that remained at home consisted largely of debased and depreciated pieces so poor that people were loath to accept them at all.

To remedy this difficulty, the General Court of Massachusetts in 1652 established a mint for the coining of shillings, six-penny and three-penny pieces. One side of the shilling was stamped with a pine tree, hence the name "pine tree shilling." The colony did not operate this early

mint, but contracted for the minting of the coins. The mint master was required to coin all the silver offered, retaining as his pay fifteen pence out of every twenty shillings coined. The mint was closed in 1686 by order of the English government. The pine tree coinage did not greatly relieve the need for money, and country pay and Spanish coins continued to have wide circulation. When our Constitution was adopted in 1789 Congress was given the right "to coin money and regulate the value thereof."

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CHAPTER II

FUNCTIONS OF MONEY

9. Medium of exchange.—In tracing the evolution of money we have seen that primarily it performs two important functions—as a medium of exchange and as a measure or standard of value. Its function as a medium of exchange is to serve as a go-between in the exchange of commodities. The medium of exchange of most modern countries is quite complex and of various kinds adapted to different scales of payment. Generally the medium of exchange comprises coins of different metals and denominations issued by the government; paper money issued by the government or by the banks, or by both; and credit instruments, such as checks, drafts, bills of exchange, letters of credit and the like issued under private or public authority. Some of these media are widely and freely current throughout the community, passing freely from hand to hand in settlement of exchanges large and small. To this class belong metallic money or coins both standard and subsidiary, coin certificates, government notes and bank notes. This hand-to-hand money, however, constitutes only a small part of the medium of exchange of a highly developed commercial country. Of much larger importance, though having but limited circulation, are such media as checks and drafts which represent bank deposits and which are transferred between other than the original parties only by indorsement. This group includes also commercial bills of exchange, domestic and foreign, representing goods; and

postal and express money orders, travelers' cheques and letters of credit. Book accounts by means of which purchases and sales are balanced against each other, directly or indirectly, constitute the most important element of the medium of exchange.

10. Measure of value.—Closely linked with the service of money as a medium of exchange is its function as a measure of value. In its earliest forms money was a commodity desired by everyone, something that all were glad to accept because it could be exchanged at any time for the necessaries of life. The article which came to be agreed upon as best fitted to serve as a medium of exchange was also used as a measure of value. Accustomed to exchange things for money, people gradually learned to appraise all commodities in terms of money, and to adjust all exchanges by comparing the money values of the articles exchanged. Thus money came to be the common denominator, the standard by which the value of all other commodities is measured. Not only commodities, but rents, wages and all kinds of payments are expressed in terms of money.

Some writers insist that a wide distinction must be made between the function of money as a standard and its function as a medium of exchange.[1] A standard is used to measure value; a medium of exchange is used to transfer value. It is quite possible, of course, that one kind of money may be used as a medium of exchange while another serves as the standard or measure of value. In colonial days the values of commodities, labor and rent were expressed in terms of English money—pounds, shillings and pence; but Spanish coins formed the bulk of the actual circulating medium.[2] At the present time the gold dollar is the money standard of this country, yet no gold dollars are coined or used in our circulation; our actual medium of exchange comprises a variety of coins, made from different metals, several kinds of paper money, and credit

[1] Scott: Money, p. 35; Laughlin: Principles of Money, p. 14.

[2] Money which serves as a measure of value, but which is not actually in use is called "money of account."

instruments, such as the check and the draft. Indeed the whole history of money is marked by the development of money substitutes to economize the use of standard coin. To-day over 90 per cent of the large transactions of this country are performed by means of bank credits without the actual use of money. Yet while we may measure in terms of one thing and make payments in terms of another, the two functions are mutually dependent. "The medium of exchange would be useless unless some common medium of giving effect to it practically is adopted."[1] All parts of our circulating medium are in practice interchangeable, and are exchangeable directly or indirectly for gold coin, the legal standard. In speaking of money as a measure of value it should be noted that it is not an unvarying measure like a foot rule or a bushel. It is only a convenient standard for comparing the values of other commodities, a "common denominator to which all values may be reduced."

11. Store of value.—In addition to serving as a medium of exchange and as a measure of value, money is a store of value; it embodies value in a convenient form for future use or for conveyance from place to place. In early times people found it desirable to conceal their possessions from robbers or unjust tax masters. They were best able to do this by converting their wealth into money or jewels which could be condensed into the smallest bulk or weight. Money embodies value in its most general form. It is always acceptable, and among all articles it is the one thing which can be kept indefinitely without loss. It is therefore a good storer of value.

In modern times, however, when law and government guarantee to every man the secure possession of his property, there is little excuse for this hoarding; and money does not now perform any unique service as a store of value. Indeed, money is not as good a storer of value as some other forms of wealth. Money hoarded brings in no

[1] Nicholson: Money and Monetary Problems, p. 19; see also Walker: Money in Its Relation to Trade, p. 27.

return, no income; but if invested in stocks, bonds, real estate, or grain it yields a profit. So men keep as a store habitually only as much money as they expect to need for immediate use.

12. Standard of deferred payments.—Money or the monetary unit serves not only as a measure of value for the present, but also as a standard for future payments. It is a medium for credit transactions or deferred payments. Most contracts are payable in terms of money and they often run for long periods of time. Justice between borrower and lender requires that the contractual payment shall have the same value at maturity as at the beginning of the contract. It is important, therefore, that the standard shall possess comparative stability of value. But no commodity, not even gold, has perfect stability of value. Since every commodity is subject to changes in the conditions affecting its production, it is impossible to find a perfect standard of deferred payments. And yet some standard must be chosen. Owing to their durability and to the comparatively small annual addition to the world's supply the precious metals are least likely to vary in value on account of changes affecting themselves. Through a long period of evolution the great commercial nations have come to regard gold as the commodity best fitted to serve as a standard. From time to time, however, various proposals have been made to establish a more stable standard of deferred payments. Of these proposals, bimetallism has received most attention.

13. Bimetallism.—Bimetallism is a monetary system in which the standard money is composed of gold and silver, the two metals that civilized nations have used as standards of value in modern times. It is known also as the "double standard" as distinguished from the "single standard," where only one commodity is used as the standard of value. Under a bimetallic system the mints are open to the unlimited coinage of both metals at a fixed ratio of exchange established by law and both metals are legal tender in unlimited amounts, thus giving people the option

of making payments in either gold or silver. Bimetallism means, then, not the mere use of both metals as currency, but the use of both as standard money.

Bimetallism necessitates the fixing of a definite ratio of the weight of gold in the dollar or monetary unit to the weight of silver in the unit, but since both metals fluctuate in response to market conditions, the *values* of the two coined metals refuse to coincide at any fixed ratio for long at a time. It must be understood that the stamp of the government or of the mint upon standard coins does not give them value; the stamp is simply the certification that these coins contain a certain weight of coin of a specified fineness. Under our coinage system the silver dollar contains 371¼ grains of pure silver, or 412½ grains of silver 9/10 fine; the gold dollar, if actually coined, would contain 23.22 grains of pure gold, or 25.8 grains of gold 9/10 fine. Their weights are then approximately as 16 to 1. The silver dollar contains sixteen times as much pure metal by weight as the gold dollar, and this is known as the coinage or mint ratio. The ratio of the two metals as bullion in the open market is spoken of as the market or bullion ratio. Official coinage laws have generally fixed the mint ratio of gold and silver at the market ratio prevailing at the time, but without providing a practicable method of changing the official ratio to conform to changes in the market ratio.

Now, if the legal ratio between gold and silver is fixed at 16 to 1, that is, if the mint coins 16 ounces of silver into as many dollars as 1 ounce of gold while an ounce of gold bullion sells in the open market at the same price as 17 ounces of silver, people will not take gold to the mint. At the mint they can get for an ounce of gold only as many dollars as for 16 ounces of silver, but in the market they can exchange it for 17 ounces of silver. Obviously a profit can be made by exchanging the gold for silver bullion and taking the latter to the mint to be coined into dollars. Furthermore, it will be profitable under these conditions to melt existing gold coins into bullion and exchange it for silver to be sent in turn to the mint.

If, on the other hand, the market price of 15 ounces of silver bullion is equivalent to 1 ounce of gold, while the mint ratio is 16 to 1, no one will take silver to the mint. It will be more valuable as bullion than as coin, and silver coins will disappear from circulation just as in the other case gold coins disappear. When the mint ratio and the actual market ratio of the two metals do not agree, and as a consequence one of them is withheld from the mint, it is said to be undervalued, while the other is overvalued. Experience has shown that a small variation between these ratios will cause the undervalued metal to be withheld from coinage, while the overvalued metal will be presented freely to the mints to be coined and in time will drive the other out of circulation.

14. Gresham's Law.—This tendency of an overvalued money to displace one undervalued is known as Gresham's Law, so called from Sir Thomas Gresham, master of the English mint under Queen Elizabeth. He first clearly formulated the principle, which, however, had long been recognized, that bad money drives good money out of circulation, or that "the cheaper money drives out the dearer." By bad money he meant worn and clipped coins, while good money referred to full-weight coins. The tendency to retain the bright new coin and to pass on to someone else the worn and underweight coin is familiar to everyone. But the law operates also, as illustrated by the early monetary history of this country, under the bimetallic system. When the coinage system was established in 1792 the law provided for the coinage of gold and silver at the ratio of 15 to 1. This ratio differed, however, from the market ratio, which was about $15\frac{1}{2}$ to 1. Gold being thus undervalued at the mint was not presented for coinage, while silver, being overvalued, was freely offered and became the sole metallic coin in circulation. In 1834 the legal ratio was changed to 16 to 1, but at this ratio gold was overvalued and soon gold coins displaced silver, the latter being melted down or exported and sold as bullion.

The operation of Gresham's Law has frequently been

demonstrated also by the disappearance of coin as the result of the circulation of depreciated paper money. During the Civil War both the Federal and Confederate governments issued treasury notes to circulate as money. Such quantities were issued that they depreciated rapidly in value. Gold and silver coins disappeared from circulation because people could melt them down and exchange the bullion for these notes at their depreciated value. This process netted a substantial gain, since a dollar note would buy as many things as a silver or a gold dollar. These depreciated legal tenders thus became not only the sole medium of exchange, but also the standard of value, all prices being quoted in legal tenders instead of gold. Prices still depended, however, upon the value of gold. The value of the notes themselves, that is, what people were willing to pay for them, was quoted in terms of gold.

15. Advantages claimed for bimetallism.—The advocates of bimetallism claim for it various advantages, of which the most important, perhaps, is the greater stability of value of a double standard. They claim that since gold and silver are produced under different conditions and are used for different purposes, fluctuations in their respective values are as apt to be in opposite directions as in the same direction; that gold may be cheapening while silver is enhancing in value, and that these movements in opposite directions tend to keep the two metals from varying greatly from the legal ratio. It is undoubtedly true that the relative values of gold and silver under a double standard tend toward the established ratio. If gold is overvalued it is attracted to the mint and less of it is offered on the market, with the result that its value tends to rise. On the other hand, if it is undervalued it will be melted down to be sold as bullion on the market, and the increase there would tend to lower its value. Thus, says the bimetallist, any tendency of gold either to rise or fall in value would be automatically checked. As pointed out by Dr. Scott, "The weakness of this argument is the assumption involved of the unlimited interchangeability of gold and silver coins

for monetary purposes."[1] Gold is best suited for coins of high denominations and silver for small denominations, and neither can well take the place of the other. Without this interchangeability of the coins the "compensatory action" of bimetallism would fail to work. As a result there would be a frequent change of the standard of value from one metal to the other, debtors choosing the cheaper one as the basis for payments, and prices would be quoted in that metal. "Instead of ridding us of the evils of a fluctuating standard, therefore, bimetallism would substitute one kind of fluctuation for another, namely, that involved in changing from a dearer to a cheaper standard for that involved in changes in the value of gold." Finally, it should be noted that even if the values of gold and silver could be maintained at a fixed ratio to each other, it would not solve the problem of a stable standard of deferred payment. Though thus tied together they would not always maintain the same exchange relations and the same level of prices with all other commodities, the cost of which is constantly changing.

Despite some more or less successful experiences with bimetallism, notably the experience of France in the last century, it is now generally conceded that no nation could independently maintain the double standard under existing conditions of a large and fluctuating production of gold and silver and of an enormous international trade. From time to time conferences have been held to discuss the establishment of international bimetallism, that is, the adoption by the leading nations of the double standard at a ratio determined by international agreement. The possibility of maintaining an actual bimetallic system, even if it could be agreed upon by the leading nations, has always been open to doubt. The extraordinary increase in the production of gold in recent years has set at rest, for the present at least, the double standard controversy.

England was one of the first countries to reach the conclusion that gold and silver cannot be kept in current cir-

[1] Scott: Money, p. 85.

culation at any fixed ratio. That country had through the eighteenth century a nominal double standard, though the circulating medium was composed largely of gold. In 1816 she formally adopted the single gold standard. The other countries of Europe, in most of which silver was the main metallic money, continued the struggle to maintain the double standard for a few decades longer. Germany adopted the gold standard in 1871. In 1865 France, Belgium, Switzerland and Italy united to form the Latin Union, the main object of which was the adoption of a uniform decimal coinage system based on the French franc. The Union adopted the double standard with free coinage of both metals at a ratio of $15\frac{1}{2}$ to 1. In 1873 France, fearing the loss of her supply of gold, stopped the free coinage of silver, and in the next year the Union limited the amount of five-franc pieces to be coined. Finally, in 1878, the coinage of these silver pieces was discontinued and it has never been resumed. Thus, bimetallism came to an end. In practically every important nation in the world gold is now the standard of value.

16. The "limping standard."—But though the double standard has given place to the single gold standard, silver coins are used in the circulating media of all countries. Gold is coined at the mints freely and in unlimited amounts and is the only coin endowed with complete legal tender quality, while silver is coined in limited amounts and is used chiefly in the smaller or subsidiary coins. When France and the other countries of the Latin Union abandoned bimetallism the silver five-franc pieces remained in circulation and were not deprived of their full legal tender quality. Despite the subsequent fall in the price of silver bullion these silver pieces have continued to circulate on a parity with gold. Until recently the old silver thaler of Germany was full legal tender. But in 1900, when the amount of smaller silver coins was increased from 10 to 15 marks per capita, provision was made for coining the thalers into these smaller coins, and in 1907 the thaler was deprived of its legal tender quality. The standard silver

dollars of the United States, though no longer coined, are legal tender at their face value in payment of all debts, public and private, and circulate at par with gold. Countries which are theoretically on the single gold standard, but which retain silver coins with full legal tender power, are said to have a "limping standard," because the silver coins, though of less value intrinsically than the gold coins, limp along on an equality with gold by being coupled with it. They remain at a parity with gold because of their limited quantity, their full legal tender power, and their acceptance in payment of public dues.

Because of its high value, gold is not adapted to coinage into the small pieces needed for hand-to-hand money. For the smaller coins, ranging from ten cents to a dollar, silver is most suitable. Nickel and copper are used for coins of still smaller denominations. Various methods have been adopted in different countries to regulate the quantity of subsidiary silver. In Germany it is now limited to 15 marks per capita and in France to 7 francs. In the United States and in Great Britain no limit is set. Generally when no limit is fixed the government buys bullion and coins silver coins in such amounts as experience shows to be needed from time to time.

17. The gold exchange standard.—A few countries, including Mexico, China, the Philippines and India, which are upon a silver basis, have been able to adjust their international relations with gold standard countries by adopting the "gold exchange standard," so called because the currency issued under it is exchangeable at a fixed ratio with gold. "The gold exchange standard," says Conant, "differs from the single metallic standard in the fact that it contemplates the coinage and circulation of little or none of the standard metal, but provides means (chiefly by government control of the coinage) for keeping token coins of cheaper metal at a fixed value in standard money."[1] This system is in practice similar to that of the limping standard, but the latter term is applied more properly to

[1] Conant: Principles of Money and Banking, Vol. I, p. 279.

the coinage system of countries which have unconsciously drifted into the large use of overvalued token money; while the term gold exchange standard is applied to the system of countries which "have adopted gold as the standard but have deliberately issued token silver coins for current use, adjusted to local requirements and to the reduced value of silver bullion." India adopted the gold exchange standard in 1899, the Philippines in 1904, and Mexico in 1905.

To sustain the silver coins at their face value for purposes of money, laws have been passed limiting the quantity issued to the commercial needs of the country, and making them receivable at face value by the government for public dues. In the plans adopted for a gold exchange standard the coinage ratio between gold and silver was adjusted to the decline in the gold value of silver in recent years. Thus, the ratio adopted in the Philippines was about 32 to 1. To meet the demands of foreign exchange growing out of international trade, the governments of countries having the gold exchange standard keep gold funds in the leading financial centers and sell foreign exchange calling for gold in these centers at fixed rates in exchange for the silver money of the country. The adoption of the gold exchange standard by countries formerly upon a silver basis has steadied the par of exchange between Oriental and Western countries and has left countries where silver was best adapted to local conditions free to use it without being subject to the inconvenience of fluctuations in its gold value.[1]

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[1] For a full discussion of the gold exchange standard see Conant, Principles of Money and Banking, Vol. I, Bk. III, Chs. VI, VII; also *Economic Journal*, June, 1909, pp. 190-200, and *Quarterly Journal of Economics*, Vol. XIX, pp. 600-605.

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CHAPTER III

HISTORY OF UNITED STATES COINAGE

18. Adoption of a coinage system.—The coinage system of the United States was established by Act of Congress in 1792, which followed closely the recommendations of Alexander Hamilton, first Secretary of the Treasury, in his report on the establishment of a mint. The principal features of this first coinage act were the adoption of the bimetallic system, of the decimal system of reckoning, and of the dollar as the unit of value. The dollar [1] was adopted as the unit of value because in all the States people had become used to quoting prices in that unit and were already familiar with the Spanish milled dollar. The simplicity and convenience of the decimal system as compared with the awkward English system of reckoning in pounds, shillings and pence, led naturally to the adoption of the former. Bimetallism was adopted because that system was in use in European countries and it was believed that bimetallism would insure a larger supply of coin than would either silver or gold monometallism.

19. The silver period.—Under the coinage system thus adopted both gold and silver were made full legal tender and the mint was to be open to the free and unlimited coinage of both. At the market prices then existing a dollar would buy $371\frac{1}{4}$ grains of pure silver or $24\frac{3}{4}$ grains of pure

[1] The word dollar is a corruption of the German *Thaler*, abbreviated from *Joachimthaler*, a silver coin issued in Bohemia in the sixteenth century.

gold, that is, gold was worth fifteen times as much as silver weight for weight. This ratio of 15 to 1 was therefore preserved in the coins.

Before the mint had begun to manufacture the new coins, a change occurred in the relative value of gold and silver in the commercial market. Gold became worth more than fifteen times as much as silver, an ounce of gold exchanging as bullion for 15½ ounces of silver.[2] Under these circumstances very little gold was brought to the mint to be coined. Since an ounce of gold would buy 15½ ounces of silver and the mint would give to 15 ounces of silver the same monetary power as to an ounce of gold, it was more profitable to sell gold as bullion and take only silver bullion to the mint to be coined. The little gold that was coined soon disappeared from circulation, being melted down or exported, and the country was reduced to the cheaper silver standard.

Our early experience with the new silver coins was also disappointing. Realizing that it would be some time before a sufficient supply of new coins could be made to meet the needs of the country, Congress had authorized the use of the Spanish dollar and several other kinds of foreign coins which were in circulation throughout the country. The Spanish dollar in perfect condition contained a little more silver than the new American silver dollar, and under the operation of Gresham's Law the American dollar should have driven out the Spanish coin, since both were full legal tender. But other influences interfered with the normal operation of the law in this case. There was at this time a considerable trade between the United States and the West Indies, and in both countries both dollars were accepted at their face value. American merchants engaged in this trade found it profitable to ship American dollars to the West Indies, exchanging them there for the heavier Spanish dollars, and sending the latter to the mint to be recoined into a larger number of American dollars. This

[2] In the new coinage system established by France in 1803 the mint ratio of 15½ to 1 was adopted.

practice became so flagrant that in 1806 President Jefferson directed the mint to suspend the coinage of silver dollars and no more were coined until 1834. As gold had been exported or hoarded, the circulating medium was composed of foreign and debased coin and paper money issued by the banks. Currency difficulties were aggravated by the liquidation of the first Bank of the United States in 1811, the war with England in 1812, and the resulting suspension of specie payments by most of the state banks. Though the second Bank of the United States, established in 1816, made a brave attempt to restore specie payments, the scarcity of coin made the task most difficult.

20. The gold period.—In order to bring gold back into circulation, Congress in 1834 reduced the weight of the gold eagle to 232 grains pure gold; in 1837 the fineness was changed to 9/10 for both gold and silver coins, thus making the weight of the gold eagle 232.2 grains of fine gold, and establishing the mint ratio of 16 to 1 between gold and silver.[1] The actual commercial ratio in 1834, however, was about 15.73 to 1, so that the new coinage ratio undervalued silver just as the old ratio of 15 to 1 had overvalued it. Silver was now worth more as bullion than in the form of coins and so disappeared from circulation. Under the new ratio it became profitable to turn gold bullion into coin and after the discovery of gold in California in 1847 and in Australia a few years later, large quantities of gold came into circulation.

The disappearance of silver coins left the country badly off for small change. To meet this difficulty, Congress passed the subsidiary coinage act in 1853, which abandoned the principle of free and unlimited coinage of the fractional silver coins and directed that they should be coined only from bullion bought by the Government at the market price. The new subsidiary coins were reduced about 7 per cent in weight so that it would not be profitable to melt them to be sold as bullion, and they were not to be legal tender for more than $5. By this device a fairly adequate

[1] The exact ratio established was 15.988 + to 1.

supply of small silver came into circulation. The act of 1853 did not affect the silver dollar, but as it was worth from $1.01 to $1.05 as bullion, its coinage was not profitable. From 1834 down to the Civil War gold was the real standard of the country, and after the discovery of gold in California and Australia, gold coin came into circulation in large quantities. And though the silver dollar was not coined, the subsidiary coinage act of 1853 provided a fairly ample supply of small change. Thus for the first time the country possessed an adequate circulation of specie. During this period, however, the greater part of the circulating medium of the country was paper money issued by the state banks.

21. The paper standard period.—To meet the tremendous expenses of the Civil War, Congress in 1862 authorized the issue of United States notes, and within a few months $400,000,000 of these notes were forced into circulation. They were made legal tender for all debts, public and private, hence the name "legal tenders."[1] The injection of this enormous amount of money into the circulation caused gold to disappear and reduced the country to a paper standard. At one time the greenbacks depreciated in value to about 35 cents to the dollar and prices rose and fell with the fluctuating value of these notes. When the Government suspended specie payments in 1862, silver coins also disappeared from circulation. To meet the need for change, merchants and manufacturers issued tickets, due bills and other money substitutes. Congress tried various expedients to supply change; first, it authorized the use of postage stamps; then postal currency; and, finally, fractional paper currency in denominations corresponding to the subsidiary silver coins. At one time over $49,000,000 of this fractional paper currency was outstanding.

Another financial expedient of the Civil War period was the establishment of the national banking system in 1863. Banks organizing under this system were required to pur-

[1] These notes came to be known also as "greenbacks" because of their distinctive color.

chase government bonds against which they might issue their own circulating notes. In 1865 Congress passed a law imposing a tax of ten per cent on the circulating notes of state banks, which cleared the field for national bank notes. For a number of years after the war the circulating medium of the country was composed of greenbacks, national bank notes, and fractional paper currency.

22. Revision of coinage laws, 1873.—In 1873 Congress, anticipating the resumption of specie payments, made a general revision of the coinage laws in which the silver dollar was dropped from the list of authorized coins. This aroused no interest at the time, for under the ratio of 16 to 1 established in 1834 the silver dollar had become practically obsolete. In 1872 the silver bullion needed to coin a dollar was worth $1.02, so nobody thought of bringing it to the mint to be coined. Silver dollars, of which only about eight millions had been coined in the whole period since 1789, had not been in circulation for more than a generation. The act of 1873, which later came to be called by free silver advocates the "crime of '73," simply gave legal recognition to the fact that the silver dollar was no longer a part of the circulating medium.

23. Trade dollar.—The coinage law of 1873 authorized the unlimited coinage of a silver coin, known as the "trade dollar," which it was supposed might be used as a substitute for the Mexican dollar in our trade with the Orient. It was legal tender in the United States only to the amount of $5. It contained 420 grains of standard silver, and so was slightly heavier than the standard silver dollar (412½ grains), and was worth a trifle more than the gold dollar. Owing, however, to the decline in the gold price of silver, it became profitable to convert silver bullion into these trade dollars. In 1876 they were deprived of their legal tender quality and their coinage was restricted. In 1878 further coinage was prohibited except for "proof pieces," and in 1887 provision was made for the redemption of the outstanding coins at par in standard silver dollars or subsidiary silver. The total issue of trade dollars was $35,-

965,924, of which $7,689,036 were presented for redemption.

24. The free silver controversy.—Shortly after the revision of the coinage laws in 1873, which suspended the free coinage of the silver dollar, the gold value of silver depreciated greatly and the silver question became the leading economic and political issue for a generation. From 1792, when our first coinage law was passed, to 1873, the commercial ratio of gold and silver had fluctuated between comparatively narrow margins, never falling below 16 to 1 or rising above 15 to 1. In 1875, however, the market ratio fell to 16.62 to 1; by 1880 it was 18.04 to 1; and in 1895 the ratio was 31.60 to 1. Among the circumstances that contributed to this great change in the relative values of the two metals, the following stand out prominently: (1) The opening up of rich silver mines in the Western States; (2) the stoppage of free and unlimited coinage of silver by several European countries; (3) a falling off in the demand for silver in India; (4) an increase in the value of gold as shown by the fall in the general price level of commodities.

Reference has been made to the very large issues of legal tenders by the Government during the war. These notes were simply the Government's promise to pay and did not specify how and when they were to be redeemed. Upon the restoration of peace and the return of normal financial conditions, the business interests of the country demanded the redemption of these pledges. Despite strong opposition to the retirement of the greenbacks on the part of those who wished to check the fall in prices which set in after the panic of 1873, Congress in 1875 committed itself to the resumption of specie payments. Then arose a clamorous demand, particularly from those interested in the new silver mines in the West, for the remonetization of silver, that is, the opening of the mints to the free and unlimited coinage of silver dollars at the ratio of 16 to 1. This demand on the part of the silver interests who wanted to check the falling price of their product was supported by the so-called currency "inflationists" who opposed the

resumption of specie payments and the retirement of the greenbacks. The silver agitation appealed also to the Western farmers who, after a period of high prices, were going through an era of falling prices and who believed that more money would bring higher prices; and many believed that the demonetization of the silver dollar in 1873 was an injustice.

25. The Bland-Allison Act, 1878.—Though the silver agitation did not result in the restoration of free coinage of silver, two compromise measures were passed by Congress under which enormous quantities of silver were added to the country's circulation. The first of these measures was the Bland-Allison Act passed in 1878, which required the Treasury Department to purchase not less than $2,000,000 worth nor more than $4,000,000 worth of silver bullion a month and to coin it into standard silver dollars of 412½ grains, which were again made legal tender. Under the operations of this act about 25,000,000 silver dollars were coined each year for the following twelve years. The act of 1878 provided for the deposit of silver dollars with the United States Treasury and the issue therefor of silver certificates redeemable on demand in the dollars.

26. The Sherman Act, 1890.—Despite this aid to silver its price measured in gold continued to fall, and the advocates of free silver kept up their agitation both in and out of Congress. In 1890, therefore, another compromise measure, known as the Sherman Act, was passed, which required the Secretary of the Treasury to purchase monthly 4,500,000 ounces of silver at the market price to be paid for by the issue of treasury notes. These notes were made full legal tender, and were redeemable in gold or silver coin at the discretion of the Secretary of the Treasury. They were known as "coin notes," also as "Sherman notes." The silver purchased was to be coined only as rapidly as was necessary to redeem the notes, but the act of 1890 provided that when the notes were redeemed or received for dues they might be reissued. As a result of these two silver purchase acts over 576,000,000 standard silver dollars were

coined. Because of the awkwardness of the silver dollars, however, only about 80,000,000 of them got into actual circulation. The rest have been represented by silver certificates redeemable in silver dollars on demand, and by treasury notes.

This very large addition of overvalued silver to the currency of the country caused a corresponding withdrawal of gold from circulation, and for a time after 1890 seriously embarrassed the Treasury in its efforts to maintain an adequate gold reserve. At this time no specific gold reserve was required by law, but custom had established a minimum of $100,000,000. The tariff act of 1890 reduced revenues $50,000,000 and at the same time increased appropriations were voted, including $50,000,000 a year for pensions. Large exports of gold had to be made in the years 1891 to 1893. The Government was required to redeem in gold coin on demand the greenbacks and the treasury notes of 1890, and to maintain the silver dollars and silver certificates at a parity with gold. The greenbacks were redeemable in gold at the Treasury, but the law provided for their immediate reissue. The banks were experiencing great difficulty in securing gold for their reserves, so they promptly returned the reissued greenbacks to the Treasury for redemption in gold. To aggravate this serious situation the Sherman notes were used in the same way. These notes were redeemable in either gold or silver, but under the circumstances everyone asked for gold. Thus, both legal tenders and treasury notes were acting as an "endless chain" to drain the Treasury of its gold. The gold reserve fell from $190,000,000 in 1890 to $97,000,000 in 1893, and the Treasury was threatened with complete exhaustion of its gold reserve. Alarm spread throughout the country, precipitating the disastrous panic of 1893. President Cleveland called a special session of Congress in August of that year, and the silver-purchase clauses of the Sherman Act of 1890 were repealed. In 1898 an act was passed providing for the coinage into silver dollars of the bullion purchased under the act of 1890.

27. Bond issues.—The repeal of the Sherman Act did not relieve the Treasury of its embarrassment nor provide a remedy for the currency ills. The gold reserve of the Treasury continued to decline until it had reached $65,000,000 in January, 1894. President Cleveland tried to get legislation authorizing the issue of bonds to replenish the gold reserve. Failing in this the Government was compelled to fall back upon the Resumption Act of 1875, which provided for the sale of bonds to redeem the legal tender notes. Though two bond issues of $50,000,000 each, paying 5 per cent, were made in 1894, they brought only temporary relief, the gold paid for the bonds being drawn from the Treasury in advance or later by the presentation of greenbacks for redemption. Within a few weeks following the second loan, $80,000,000 was drawn from the Treasury in gold. People had begun to doubt the ability of the Government to maintain its credit.

In this emergency President Cleveland made an arrangement with a syndicate of New York bankers to provide the Treasury with gold to the amount of $65,000,000, at least one-half of which was to be imported from Europe, and the syndicate agreed to do all in its power to protect the gold reserve in the Treasury. The gold was to be purchased with 4 per cent thirty-year bonds at 104½, at which rate the interest would be about 3¾ per cent. The syndicate proposed to accept the bonds on a 3 per cent basis if they were made payable in gold. This would have effected a saving to the Government of over $16,000,000 in interest, but Congress, being out of sympathy with the President, rejected the proposition. Because of its strong foreign connections the syndicate was able to prevent withdrawals of gold from the Treasury for several months, and the gold reserve rose above $100,000,000. After the syndicate's contract had expired, however, withdrawals of gold began again and by the close of the year 1895 the treasury reserve had fallen below $50,000,000. On January 6, 1896, the Treasury announced a new issue of 4 per cent 30-year bonds to be offered at public subscriptions to the highest

bidder. The $100,000,000 loan was largely oversubscribed at bids ranging from 110⅝ to 120, and within a few weeks the Treasury reserve rose above $128,000,000.[1] Though gold exports continued for some months longer, reducing the reserve to $90,000,000 in July, 1896, the success of the loan did much to restore public confidence, and after the decisive victory of the gold standard party in the elections that year the Treasury experienced no further trouble in maintaining an adequate reserve.

During the period, 1893–1896, in which the Government was struggling to maintain adequate gold reserves, factionalism prevented all attempts to reform the currency system. President Cleveland had recommended the retirement of the greenbacks and the Sherman notes to relieve the Treasury from the obligation of maintaining a gold reserve for their retirement, but Congress sullenly refused to take any action. Meantime the agitation for the free and unlimited coinage of silver was kept up and became the sole issue in the presidential contest of 1896. This election resulted in a victory for the champions of the gold standard and plans were at once formed to safeguard it for all time. In 1897 a convention of business men representing the leading commercial organizations of the country met in Indianapolis and formulated a plan of currency and coinage reform which was presented to Congress. After several years of public discussion and agitation, Congress enacted the so-called "Gold Standard Act," March 14, 1900, which formally and definitely recognized the single gold standard.

28. The Gold Standard Act, 1900.—The single gold standard was legally established in 1873, and after resumption of specie payments in 1879 gold became the actual standard. The act of 1900, therefore, in providing that the gold dollar consisting of 25.8 grains should be the standard of value of the United States, merely reaffirmed the earlier acts. The act provided that all forms of money issued or coined by the United States should be maintained at par

[1] Noyes: Forty Years of American Finance, p. 254.

with gold and that it should be the duty of the Secretary of the Treasury to maintain such parity. Though the act did not provide adequate machinery for maintaining this parity, it corrected several of the defects of the old system. It provided for the redemption of the legal tender notes in gold on demand, for which purpose a reserve of $150,000,000 in gold must be kept in the Treasury. If this fund should at any time fall below $100,000,000, the Secretary of the Treasury is required to restore it to $150,000,000 by the sale of bonds. This gold reserve cannot be used to meet a deficit in revenue. To prevent a repetition of the "endless chain" operations of the period following the crisis of 1893, the act provided that legal tender or treasury notes once redeemed should not be reissued except in exchange for gold. It also provided for the gradual retirement of the treasury notes by directing the Secretary of the Treasury to cancel them as fast as silver dollars could be coined and silver certificates issued under the terms of the Sherman Act of 1890 and the act of 1898. The Federal Reserve Act passed December 23, 1913, specifically reaffirmed the parity provisions of the act of 1900, and provided that the Secretary of the Treasury, in order to maintain such parity and to strengthen the gold reserve, may borrow gold on the security of bonds as authorized by the act of 1900, or on one-year gold notes, or to sell the same if necessary to obtain gold.

Summarizing the evolution of our standard, the monetary history of the United States may be divided into five periods: (1) 1792–1834, the period of bimetallism with silver overvalued at the mint; (2) 1834–1862, bimetallism with gold overvalued; (3) 1862–1879, the greenback period; (4) 1879–1900, the period of the limping standard; (5) 1900 to date, the period of the unequivocal gold standard.

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CHAPTER IV

PAPER MONEY

29. Early paper money.—Among the devices which commercial nations have developed to facilitate the processes of exchange, representative money in the form of paper has come to have a very large importance. In early times people did not use paper money for the simple reason that they did not know how to make paper, but they used other forms of representative money in much the same way as some forms of paper money are used to-day. Small pieces of leather stamped with an official seal were among the earliest forms of representative money. When the increase in trading made skins inconvenient as a medium of exchange, small pieces were cut from them and presented as evidence of possession.[1] Proof of ownership could be shown if necessary by fitting these pieces into the places from which they were cut. When people got accustomed to these leather tokens they continued to use them long after the use of the actual skins as a medium of exchange had been abandoned.

A form of paper money was used in China and in other ancient civilizations at a very early time. In the thirteenth century Marco Polo found paper notes circulating in China which were legal tender and of different denominations. The introduction of paper money in Europe grew out of the difficulty and danger of carrying or storing large quantities of metal coins. In England, for example, mer-

[1] Jevons: Money and the Mechanism of Exchange, p. 192.

chants, finding it unsafe to keep money in their own houses or places of business, deposited it with goldsmiths, who had better means of safeguarding it. The goldsmiths gave receipts for these deposits of money in much the same way that warehouse receipts are used to-day. After a time the practice arose of transferring these receipts or "goldsmiths' notes," instead of withdrawing and transferring the money when payments had to be made. It was but a short step to the circulation of notes which were general promises to deliver a sum of money on demand without reference to specific deposits of coin. When people became accustomed to the use of paper promises to pay in specie, governments found it possible to issue paper which was only nominally payable in coin but which circulated as freely as the coin itself. The use of paper money on any considerable scale, however, did not begin until public banks were established.

30. Systems of paper money.—Paper money may be grouped under three general heads—representative, convertible or fiduciary, and inconvertible or fiat money. From the standpoint of the authority issuing it, paper money is divided into government currency and bank currency. In the leading European countries all paper money is issued by the banks; in the United States it is issued both by banks and by the Government. Our national bank notes and also the recently authorized Federal reserve notes are in effect obligations of the Government. Sometimes corporations and even individuals have issued notes intended to serve as money, and in some instances these have gained a considerable range and volume of circulation, but such cases are exceptional.

Representative paper money is issued against the specific deposit of an equal sum of gold or silver held in trust in a public depository for its redemption. Our gold and silver certificates are of this nature; they are really receipts, not unlike warehouse receipts, certifying that a certain sum of money in gold or silver, as the case may be, has been deposited in the United States Treasury, payable on de-

mand to the bearer of the certificate. These notes are more convenient to handle than the coin; they take up less room for storing; they are less expensive to ship; and they save the wear and tear on the coins. This latter saving is offset to some extent by the expense of printing new notes to replace those worn out.

Gold certificates were first authorized in 1863 against deposits of gold coin and bullion. It was not intended that they should be used as "pocket money" and the smallest denomination was $20. In 1907 provision was made for the issue of $10 gold certificates. When the coinage of standard silver dollars was resumed in 1878, it was found that, owing to their inconvenient size and weight, these coins would not circulate freely, and so the plan of issuing certificates against them was tried. After the passage of the act of 1886 authorizing the issue of the smaller denominations of $1, $2, and $5, silver certificates largely displaced the silver dollars which they represent. Some authorities question the wisdom of retaining the silver dollars in our monetary system, but as long as they are retained it is clearly an advantage to substitute the certificates for them.

31. Convertible or credit paper money.—Convertible paper money, otherwise known as redeemable, fiduciary, or credit paper money, consists of notes promising to pay in coin on presentation the amount expressed on the paper. Strictly speaking, such paper is redeemable in standard legal tender coin and in that alone.[1] Gold and silver certificates were grouped in the preceding section under the heading of representative money, but it would be entirely proper to class them as convertible paper money, since they are government promises to pay in coin. They differ from credit money proper, however, in that they represent dollar for dollar the specie against which they are issued and that they simply facilitate the use of specie, while convertible government paper is only partially covered by a specie reserve and is not intended to serve as a substitute for coin but to supple-

[1] Kinley: Money, p. 331.

ment it and so to expand the total volume of currency. This convertible paper money is not retired when received by the Government, but is paid out again just as coin is paid in discharge of its obligations. The Government merely guarantees its redemption in specie, a certain amount of which is kept on hand for the purpose.

Our United States notes or greenbacks are a conspicuous example of convertible paper money. They were issued originally as inconvertible treasury notes during the Civil War. When specie payments were resumed in 1879, these notes amounting to $346,000,000, instead of being paid off and cancelled, were made convertible. The Government agreed to redeem them in gold coin on demand, though no specific coin reserve was set aside for that purpose until 1900, when a special fund of $150,000,000 in gold was created to be held in the Treasury for their redemption.

The treasury notes of 1890 were of the same general type. They were issued to pay for the silver bullion which the Secretary of the Treasury was directed to purchase and were redeemable either in gold or silver coin at his option. The Sherman Act of 1890 required the Secretary of the Treasury to maintain all forms of the currency at a parity with gold, and since the bullion value of silver dollars was at the time only about one-half their face value, it became necessary to redeem these notes in gold. Before the repeal in 1893 of the silver-purchase acts about $150,000,000 of these treasury notes were issued. The difficulties which for a time confronted the Treasury in its efforts to redeem the greenbacks and the treasury notes are recited elsewhere.[1] The coinage of the silver purchased under the terms of the acts of 1878 and 1890 into silver dollars and the substitution of silver certificates for the Sherman notes has resulted in the practical disappearance of the latter from our currency. Of the greenbacks, however, $346,000,000 remain.

Several other countries, for example, Canada and Germany, have made use of convertible treasury notes. In

[1] See pp. 32-34.

Germany the issue is comparatively small—about $30,000,000—and no special fund is set aside for the redemption of the notes. In Canada a much larger amount of treasury notes ($29,000,000) relatively is outstanding, but there, as under our system, the notes are protected by a reserve of gold.

In common with other forms of paper currency, government convertible paper has certain advantages: the greater convenience of handling and storing, the saving of the wear on the coins, and the saving of capital in the production of gold and silver. In addition, convertible notes relieve the government of a considerable interest charge, since, being only partially covered by a specie reserve, they are in part a loan to the government without interest.

The advantages of convertible treasury notes, however, are more than counterbalanced by disadvantages. Since the issue of such notes must be authorized by law and the quantity strictly limited, they cannot give to the currency system any degree of elasticity. They cannot be increased and decreased in volume in response to the changing needs of business. Thus the total amount of greenbacks has remained fixed at $346,000,000 ever since 1879, when they were made convertible. Treasury notes simply take the place in the circulating medium of an equal amount of gold or gold certificates which would more effectively support other elements of the currency and the entire credit system. Another disadvantage of this kind of note lies in the fact that it imposes upon the government the task of redemption, for which it is not properly fitted. To insure prompt redemption of the notes the government must establish and maintain a specie reserve. If this reserve becomes inadequate by reason of the presentation for redemption of an unusual volume of notes, the fund must be increased by taxation or by the sale of bonds. Neither method can be depended upon with certainty. Reliance cannot be placed on current government receipts from taxation, since the coin paid in is needed ordinarily for current expenditures. If a special tax or an increased tax

rate be levied to provide a redemption fund, the extra payments offset any gain from the issue of the notes. The sale of bonds is also open to the objection that it involves the payment of interest charges, which may exceed the profit accruing from the issue of the notes.

32. Inconvertible or fiat currency.—Inconvertible paper money consists of notes promising to pay money to the bearer, but not actually redeemable in specie. Such paper may be issued by banks as well as by governments. It is known also as fiat money, because its use as money depends upon the fiat or command of the government. The essence of fiat money lies in the lack of expectation or intention of redeeming it in specie and in the artificial regulation of the amount issued. It circulates "either because the people have no better money, and the quantity of it is so limited that its evils do not yet appear, or because the Government is strong enough to compel its citizens to accept the paper."[1] Usually governments in issuing this kind of paper seek to strengthen it by making it a legal tender for debts and by making it receivable for taxes and other public dues.

Inconvertible government notes have usually been resorted to only in times of great fiscal need, when the government has found it difficult to raise necessary funds by the usual methods of taxation or loans. Many countries have had disastrous experiences with this form of currency. Most of the American colonies issued "bills of credit" to meet the expenses of the French and Indian Wars. This appeared to be such an easy method of raising money that some of the colonies used it to meet ordinary current needs. As larger and larger issues of these notes were authorized, without any provision being made for their redemption, they declined in value until they became practically worthless. A similar situation arose during the Revolutionary War, when both the separate colonies and the Continental Congress issued great quantities of irredeemable paper. Continental notes so depreciated that they were quoted in

[1] Kinley: Money, p. 332.

1781 at 225 to 1 in coin. After the adoption of the Constitution they were made redeemable at the rate of one cent to the dollar.

The experience of France during the French Revolution affords a good illustration of the dangers of fiat money. Having exhausted all the ordinary sources of revenue, the French Government in 1789 authorized the issue of non-interest-bearing notes called *assignats*, which at first were secured by the pledge of confiscated lands of the Church. Successive issues were authorized without any pretence of redemption and in such unlimited volume that they depreciated rapidly and finally became worthless.[1]

To meet the extraordinary expenditures of the Civil War both the Federal Government and the Southern Confederacy resorted to the issue of inconvertible notes. The Confederate notes were issued in vast quantities and toward the close of the struggle became worthless. The first issue of United States notes or greenbacks, authorized by Congress in 1862, was limited to $150,000,000. Within a few months a second issue of $150,000,000 was put out, and before the war was over a total of $450,000,000 had been issued. Gold disappeared from circulation and prices were quoted in terms of this paper money. Greenbacks fluctuated in value with the fortunes of the war, depreciating in 1864 to about 35 cents on the dollar. When these notes were authorized it was understood that they would be retired as soon as possible after the war was over. In 1866, therefore, Congress authorized their contraction, but strong opposition arose and for many years the greenback controversy agitated the country. It was contended that the reduction of the circulating medium would depress prices, disturb business, reduce government revenues, and hinder the Government in its plan to refund the public debt. In 1868 the act authorizing retirement was repealed, and in 1874, when the amount of greenbacks outstanding was $382,000,000, Congress passed a bill increasing the total

[1] See Bullock: Selected Readings in Economics, Ch. XV, "Paper Money in France," by Andrew D. White.

issue to $400,000,000. Fortunately, President Grant had the courage to veto this bill and in the following year provision was made for a partial retirement of the greenbacks and for the resumption of specie payments after January 1, 1879. In 1878, when the total amount of greenbacks outstanding was $346,681,016, Congress passed a law providing that they should be reissued by the Government as redeemed or received into the Treasury. This law stopped further retirement of the notes, the amount of which has ever since remained at the total mentioned. When, in 1879, the Government resumed specie payments, the greenbacks returned to a parity with gold, for they were then redeemable in gold.

The change in the character of greenbacks from inconvertible or fiat money to convertible or credit money with the resumption of specie payments did not end the difficulties attending their use as a part of the circulating medium. The injection into the circulation of over $500,000,000 of silver, either in the form of coin or of notes, under the terms of the silver purchase acts of 1878 and 1890, caused gold to disappear and seriously embarrassed the Treasury in its efforts to maintain sufficient gold reserve to redeem the greenbacks and the treasury notes of 1890. The gold standard act of 1900 provided for a gold reserve of $150,000,000 to be held for the redemption of the greenbacks and treasury notes. It also provided that when these notes were once redeemed they should not be reissued except in exchange for gold. Under present conditions greenbacks constitute a useful and acceptable part of our circulating medium, though many thoughtful people see great disadvantages, if not danger, in their use and urge their removal from our currency system.

33. Advantages and disadvantages of inconvertible paper.— The use of paper money as an element in the circulating medium is justified on the ground that it economizes the use of metallic money. The production of gold and silver requires the outlay of much labor and capital. If paper money can be safely utilized to take the place of gold and

silver as a circulating medium, less of the precious metals will have to be mined and more labor and capital can be devoted to the production of other want-satisfying goods. Paper money is confined, of course, to the country issuing it, as gold alone enjoys such universal confidence as to make it available for the settlement of international balances.

As already noted, inconvertible government paper money has usually been issued to meet some fiscal emergency, when the Government could not meet its obligations by the usual methods of taxation or borrowing. By issuing irredeemable notes the Government virtually procures a forced loan without interest from the whole community using them. But as a rule this temporary fiscal advantage is followed by a train of evils. Experience shows that the cheapness and ease of putting out fiat money leads almost invariably to overissue, with resulting depreciation, expulsion of gold, and great disturbance of commodity prices and of business in general. Irredeemable notes are simply promises to pay a certain amount of money at some time in the future. The fact that this future payment is quite indefinite and uncertain and that the notes do not bear interest leads inevitably to depreciation. People will not knowingly give up present values for future uncertainties unless they are compensated in some way for the risk. In the case of fiat money this compensation is reflected in the discount at which people are willing to take it in exchange. As the discount on these notes varies greatly from time to time they are a most unsatisfactory medium of exchange.

Fiat money is issued usually to meet fiscal needs, and so in amount has no relation to the actual monetary needs of business. If this latter need does not increase at the time of, and in proportion to, the issue of fiat money, the metallic money of the country will disappear. Then, if further issues are put out, so that the total quantity is largely in excess of the metallic money displaced, prices will no longer be quoted in gold but in the depreciated notes, which become a secondary standard of value. As

the notes fall in value, prices rise, but with wide and sometimes violent fluctuations. Inflated and fluctuating prices result in the derangement of all normal business transactions and the encouragement of speculation. The ordinarily conservative business man finds it impossible to forecast future costs and profits, and sound business methods give place to chance and speculation. The speculative fever spreads to all classes, creating fictitious values and standards of living and undermining the foundations of both personal and business integrity.

Strangely enough, the issue of fiat money commonly meets with popular approval, at least in its early stages. Rising prices appeal to producers and to the debtor class, who find it easier to pay their debts contracted when prices were low. The mass of people take the short view, seeing only the temporary benefits accruing from rising prices and the artificial stimulation to business due to fiat money; they do not see, until too late, that the issue of such money beyond the limit of absorption by ordinary business must be followed by contraction, falling prices and loss.

34. Bank currency.—In nearly all modern countries bank currency forms an important element of the circulating medium, and, as already noted, the banks are the sole source of paper money in the leading countries of Europe. Bank notes are promises of the bank to pay a specified sum to the bearer on demand. They get into circulation by being paid out by the banks to customers either in exchange for metallic money or for the customer's evidences of credit in the form of promissory notes or bills of exchange. Thus, for example, when a customer has a promissory note discounted at a bank he may receive the proceeds, that is, the face value of the note less the discount, either in the form of money or of a credit on the books of the bank, against which he may draw checks as need arises. If he prefers to accept money, the bank ordinarily will be willing to pay him in any kind of money he chooses. If he has no preference, the bank will give him whatever kind of money is most convenient to itself, pos-

sibly its own circulating notes. Unless there is some special reason for distrusting the bank, these notes pass readily from hand to hand, performing all the essential functions of money.

Because the rank and file of people have no means of judging of the solvency of banks issuing notes the conditions under which they are issued and redeemed are usually subject to strict legal regulation. The methods adopted under different currency systems to regulate note issues operate either on the notes themselves, fixing a maximum limit to their volume. or on the reserve.[1] Regulation of note issues through the reserves may consist of a requirement that all banks shall keep on hand a certain minimum of specie or securities, or an amount of these equal to a certain proportion of the notes issued. The Bank of England notes, excepting £18,450,000 secured by government securities, are issued only against the deposit of gold. The Imperial Bank of Germany is required to keep a gold reserve of 33⅓ per cent behind its notes, and when its issues exceed a specified minimum a tax of five per cent must be paid. The note issues of the Canadian banks are limited to an amount equal to their capital stock, except during the crop-moving months, when additional notes may be issued subject to a tax. Since 1913 the Canadian banks have had the right to issue extra notes upon depositing gold with designated trustees. The Bank of France is not required to keep any specified reserve of specie or securities behind its notes, but a maximum limit is fixed from time to time by the Government. Our national banks cannot issue notes in excess of their capital stock or of the government bonds by which they are secured. The new reserve banks authorized by the act of 1913 may issue reserve bank notes up to the par value of government bonds deposited to secure them. The Federal reserve notes, which provide a kind of "emergency currency," cannot be issued in excess of the commercial paper pledged against them,

[1] For a full discussion of this question see Jevons: Money, Ch. 18; also Kinley: Money, pp. 373-389.

and they are further protected by a gold deposit equal to 40 per cent of the amount issued.

Up to the time of the Civil War a very large proportion of the actual circulating medium of this country consisted of notes issued by state banks. The Constitution expressly forbids the issue of "bills of credit" by the states, but most of the states permitted citizens to organize banks having the privilege of issuing bills of credit, that is, bank notes. In some states the banks were carefully regulated and their note issues were always redeemable in specie. In many instances, however, there was little or no supervision of banking or restriction of note issues. So-called "wild-cat" banks sprang up, issuing great quantities of notes, with neither intention nor hope of redeeming them. These notes, like the government notes when issued in excess and without adequate provision for redeeming them, soon depreciated and in many cases became worthless. Nearly all banks suspended specie payments in the panics of 1814, 1837 and 1857.

One of the chief reasons urged for the establishment of the national banking system in 1863 was to secure a sound and uniform bank note currency for the entire country. Under the terms of the act of 1863, banks were required to purchase government bonds, against which they were allowed to issue their circulating notes. Existing state banks, however, retained and exercised the right to issue notes, and the paper currency of the country was in greater confusion than ever. To compel state banks to come into the new national system and thus to secure uniformity of note issues, Congress in 1866 passed a law imposing a tax of 10 per cent on the note issues of all state banks. Since it was unprofitable to lend their notes subject to such a heavy tax, and since the issue of notes was one of their most important and profitable functions, most of the state banks entered the national system. Subsequent changes in banking and credit methods greatly lessened the relative importance of bank notes as an instrument for facilitating exchange, so that state banks have been able to

carry on a profitable business without the note issuing privilege. But for nearly fifty years after the passage of the act of 1866 no bank notes, except those issued by national banks, were in general circulation.

National bank notes are issued and redeemed under the general direction of a government officer, the Comptroller of the Currency, according to the terms of the National Bank Act, which has assured to the country a sound and a uniform currency. It is uniform because it is issued by all national banks under the same conditions and terms, and it is sound because it is protected by the deposit of government bonds in the United States Treasury, which is in effect responsible for the final payment of all national bank notes. Soundness and uniformity have been gained, however, at the expense of elasticity, the ability to expand and contract in response to the changing needs of business. Fundamentally this is due to the fact that our bank notes are based upon deposits of government bonds in the public Treasury instead of upon the general assets of the bank, which is the practice of most modern banking systems, except those of the United States and England.

35. Elasticity of bank currency.—It has been pointed out that government paper money lacks that prime essential quality of a good medium of exchange—elasticity—because it is issued primarily to meet the needs of the Government, which needs may not, and usually do not, correspond to the needs of business. An elastic currency can be provided only by some agency which is in constant touch with business, making loans to and receiving deposits from those actively engaged in business, "since such loans accurately represent the needs of the public for money and accumulations of cash in depositories represent surplus funds not needed in business."[1] Such an agency is the bank.

Prior to the passage of the act of 1913, however, our national bank system failed to provide an elastic note currency, owing to the fact previously noted that the issue of bank notes was related to government needs and obliga-

[1] Scott: Money, p. 53.

tions rather than to the needs of business. No currency system can be elastic where bonds are used as a basis for the notes. To be elastic, a bank note system must be so regulated that banks will find it profitable to issue additional notes when more currency is needed, as evidenced by the withdrawal of deposits, and to retire them when they become redundant, as indicated by a heavy increase in deposits. But under a system of bond-secured note issues the tendency of bank notes is to contract when expansion is desirable and to expand when the currency is already redundant. National banks were formerly required to deposit with the Treasury government bonds in a certain proportion to their capital. Against these bonds they could issue their own circulating notes up to the par value of the bonds so deposited. To insure the redemption of its notes each bank was required to keep a deposit of lawful money in the Treasury equal to five per cent of its outstanding circulation. When, therefore, large amounts of currency were being withdrawn from the banks, for instance, in the crop-moving season, and they wished to increase their available funds, they found that they could not do it profitably by issuing notes, for they would have to pay more for government bonds, which are usually at a premium, than they would receive in circulating notes. Indeed, in times of active demand for currency, when banks are able to lend all their credit at high rates of interest, it has sometimes been more profitable for them to retire part of their circulation, since for $95 in lawful money sent to the Treasury for note redemption they would receive a bond that might promptly be sold for more than $100. On the other hand, when the currency was already redundant, banks might find it profitable to increase their note issues. When money accumulates in their vaults, banks, rather than have it idle, are tempted to buy government bonds, which return them two or three per cent interest and against which they receive an approximately equal amount of bank notes, which may be paid out to depositors. This is exactly what happened in 1894–1895, although the re-

dundancy of the currency at that time was causing such heavy exports of gold as almost to bankrupt the Treasury. Again, during the business depressions of 1903–1904 and 1907–1908, when the country's need for cash was manifestly declining, the total volume of bank note circulation was very considerably increased.

In considering the question of elasticity it must not be forgotten that in this country banks provide through their deposits a medium of exchange much greater in volume and importance than bank notes and one which is absolutely elastic. Deposit currency, so called, consists of deposits credited on the books of the bank which circulate in the form of checks and drafts. Theoretically there is no essential difference between the bank note and the credit deposit. When a borrower at a bank secures a loan or discounts a note he may take the proceeds in the form of money, say bank notes, or be credited with a book account against which he can draw as he needs funds or wishes to make payment. A check is drawn only when the depositor has some debt to pay and is always immediately available as a medium of payment in any amount not exceeding his deposit credit at the bank. Then when the check has served its purpose it is returned promptly through the banks and the clearing house and is cancelled. In this country the great bulk of wholesale and other large transactions, and a considerable proportion of smaller business exchanges, are performed by this deposit currency, which rises and falls exactly in proportion to the exchanges of goods which call forth loans and bank deposits. Deposit currency makes it possible, therefore, for "any business man to get the money he needs, at the times and in the exact form that he needs it, provided his banker will discount his notes."[1]

36. Reserve bank notes.—The Federal Reserve Act of 1913 introduced two new kinds of paper money into our currency system: reserve bank notes and Federal reserve notes. The Act contemplates the gradual retirement of the national bank notes and the substitution therefor of

[1] Scott: Money and Banking, p. 113.

an equal amount of notes issued by the several Federal reserve banks. These reserve bank notes are the obligations of the Federal reserve banks and are issued and redeemed under the same terms and conditions as national bank notes, except that they are not limited to the amount of the capital stock of the reserve bank issuing them, but only by the amount of bonds deposited as security. Under the Act national banks are not required to retire their outstanding circulation, but may do so at any time within twenty years after December 23, 1915. In this way there probably will be a gradual shifting of the bonds held by the national banks to the Federal reserve banks and a substitution of Federal reserve notes for national bank notes. These new reserve bank notes, however, will give no elasticity to the currency system, since they are based upon bonds, just as are national bank notes.

37. Federal reserve notes.—The Federal reserve notes are expected to supply the element of elasticity lacking in all other forms of our currency. These notes may be issued to any reserve bank applying for them, at the discretion of the Federal Reserve Board, upon the deposit of commercial paper and bills rediscounted by it for member banks. The reserve notes are obligations of the Government and are receivable by all member banks and reserve banks and for all taxes, customs and other public dues, but they are not legal tender for other purposes. They are redeemable in gold on demand at the Treasury or at any reserve bank in gold or lawful money. The notes issued by a particular reserve bank bear the distinctive number of that bank, and all expenses incident to their issue and retirement must be borne by the bank issuing them. Reserve banks receiving these notes are required to pay on them a rate of interest to be fixed by the Reserve Board. No reserve bank may pay out the notes of another except under penalty of a 10 per cent tax. Against these notes the reserve bank must keep a reserve in gold of not less than 40 per cent of the amount of notes actually in circulation and not offset by gold or lawful money deposited

with the reserve agent. Each reserve bank is also required to maintain in the Treasury a deposit of gold sufficient to redeem the Federal reserve notes issued to it, but not less than 5 per cent of such issue. This deposit of gold may be counted as part of the 40 per cent reserve required. To provide some elasticity in the reserve requirements, the Act authorizes the Federal Reserve Board to suspend any reserve requirement for a period of thirty days and to renew such suspension for periods not exceeding fifteen days. If, however, the gold reserve against these note issues falls below 40 per cent, the reserve bank concerned must pay a tax graduated according to the deficiency. This tax is paid by the reserve bank, but it is required to add the tax to the interest and discount rates fixed for it by the Federal Reserve Board. Under the foregoing terms of issue and retirement the Federal reserve notes are expected to give elasticity to our currency, being issued only in response to the business demand for additional money and being retired promptly when that demand subsides.

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CHAPTER V

THE MONEY SYSTEM OF THE UNITED STATES

38. Kinds of money used in the United States.—On June 1, 1914, there were eight different kinds of money in circulation in the United States. Since then two new kinds of paper money, reserve bank notes and Federal reserve notes, have been added.

The following table based upon the circulation statement issued by the Treasury Department, June 1, 1914, shows the total stock of money and the amount of each kind in circulation and in the Treasury on that date. The total

CIRCULATION STATEMENT, JUNE 1, 1914.

	General Stock of Money in the United States	Held in Treasury as Assets of the Government*	Money in Circulation
Gold Coin (including bullion in Treasury)..	$1,931,342,109	$177,307,660	$615,431,580
Gold Certificates.... ..	.....	32,849,250	1,105,753,619
Standard Silver Dollars.	565,813,263	15,554,181	70,680,082
Silver Certificates.....	.....	13,176,783	466,402,217
Subsidiary Silver.....	181,200,547	21,571,234	159,629,313
Treasury Notes of 1890.	2,460,000	9,195	2,450,805
United States Notes....	346,681,016	6,688,925	339,992,091
National Bank Notes...	751,554,696	31,820,091	719,734,605
Total.....	$3,779,051,631	$298,977,319	$3,480,074,312

* Exclusive of $54,906,265 in National Bank Depositaries

money supply amounted to $3,779,051,631, of which $298-977,319 was held in the Treasury as assets of the Government, leaving in circulation $3,480,074,312, which represents a per capita circulation of $35.19.

39. Metallic money.—The metallic money consists of gold coin and bullion, standard silver dollars, subsidiary silver and minor coins. The total stock of gold, including coin and bullion, amounts to over $1,931,000,000. The statement shows over $615,000,000 of gold in circulation, but as a matter of fact comparatively little of it is in actual circulation, but is held in the banks as reserves. Of the $177,-307,660 in the Treasury, $150,000,000 constitutes a reserve fund held for the redemption of the United States notes and the maintenance of the gold standard. The gold coins are the double-eagle ($20), the eagle ($10), the half-eagle ($5), and the quarter-eagle ($2½). While the gold dollar is the unit and standard of value, no $1 gold pieces have been coined since 1890. The three-dollar gold piece was discontinued also at that time. The eagle weighs 258 grains and consists of a mixture of nine parts of pure gold to one part of copper; the pure gold in the eagle weighs, therefore, 232.2 grains. Gold is coined free of charge, the coining value of an ounce of pure gold being $20.67 or of an ounce of standard gold $18.60. Gold coin is legal tender in unlimited amounts for all debts public and private.

Gold bullion consists mainly of bars made by the United States mints for the convenience of jewellers and gold-exporting houses. Since gold is not well-suited for coins of small denominations, and since paper money is more convenient for everyday use, the chief use of gold is for bank reserves and for the settlement of interregional and international balances. For this latter purpose, bars of bullion properly assayed and stamped are quite as serviceable as coin.

The total stock of standard silver dollars amounts to $565,813,363, of which only about $70,000,000 are in actual circulation. The bulk of the silver dollars are stored in the United States Treasury where they are held in trust

for the outstanding silver certificates issued against them. The story of the silver controversy which agitated the country for a quarter of a century has been told in Chapter III. Originally the silver dollar was standard money, but because of depreciation in the relative value of silver with relation to gold its coinage was discontinued in 1873. By the act of 1878 limited coinage of the silver dollar was renewed; and the law of 1890 provided that it should be coined only as needed to redeem the treasury notes issued under that law to pay for silver bullion. Finally, in 1893, the silver-purchase clause of the law of 1890 was repealed, since which time no new silver has been purchased for coinage into dollars. Though still retaining the name "standard" silver dollars they are not in fact standard money. They should be classed rather as subsidiary or token money, for their bullion value is only about one-half their face value, and since 1873 there has been no free coinage of silver. Silver dollars, however, are legal tender for all payments, public and private, except where otherwise expressly stipulated in the contract. They are not legally redeemable in gold, but ordinarily there is no difficulty in exchanging them for gold.

What to do with the enormous hoard of silver dollars stored in the vaults of the Treasury is a question that has been much discussed from time to time. Though these silver dollars are nominally the security back of the silver certificates which circulate in their stead, yet, as Professor Seager says, "Really they contribute nothing to the acceptability of these certificates. It is confidence that the Government will redeem them in gold and the need there is for small bills to carry on the country's trade, not the prospect of getting in exchange for them silver dollars which no one wants, that maintain these certificates at par with other kinds of money." Two plans have been suggested for disposing of these silver dollars.[1] One is to withdraw the silver certificates and convert the silver dollars into bullion to be disposed of as the Secretary of the

[1] See Seager: Principles of Economics, p. 339.

Treasury may see fit. This plan, however, would involve a large loss to the Government since the silver dollars when reduced to bullion would bring less than one-half their face value.

To avoid this loss a second plan proposes to substitute United States notes for the cancelled silver certificates and turn the proceeds from the sale of the silver bullion into the legal gold reserve. Professor Seager estimates that if the sale of the 500,000,000 silver dollars as bullion brought in $200,000,000 in gold the gold reserve would be increased to $350,000,000, while the credit money secured by this reserve would be increased to about $847,000,000. He concludes that "the new reserve would thus be considerably in excess of one-third of the new liability, and as the greater part of this liability would be in the form of small bills which are continuously needed in connection with the retail trade of the country, there seems every reason to believe that it would be as adequate as is the present reserve against the present liability." [1] The first plan may be objected to, as already suggested, on the ground that it would involve a heavy loss in the nominal assets of the Government. Objection to the second plan would come from those who, in the light of our past experience with the greenbacks, oppose the further issue of credit money by the Government. Many publicists and students of the currency system urge the retirement of the existing United States notes and the substitution of either gold certificates or bank notes secured by commercial paper, or both.

Our subsidiary silver coins are the half-dollars, quarters and dimes. The total stock of these on June 1, 1914, amounted to about $181,000,000. The coinage law of 1792 provided also for half-dimes, and in 1851 a three-cent silver piece, one-quarter of the weight to be copper, was authorized, but when the coinage laws were revised in 1873, these were withdrawn. For two or three years after 1875 a twenty-cent piece was issued. Originally the subsidiary silver coins were proportionate in weight to the dollar and

[1] Ibid.

they were full legal tender, but by the act of 1853 the amount of metal in these coins was reduced to prevent their being melted or exported, and they were made legal tender only to $5. In 1879 the legal tender limit of all the subsidiary silver coins was made $10.

The minor coins are the five-cent nickel made of a mixture of three-fourths copper and one-fourth nickel, and a one-cent bronze coin composed of copper (95 per cent), tin and zinc. These coins are legal tender up to 25 cents and are redeemable at any sub-treasury in sums of $20 or more. The supply of minor coins is regulated by the Director of the Mint to conform to the current needs of the country. The only minor coins provided for by the original coinage act of 1792 were copper cent and half-cent pieces. In 1857 the half-cent was discontinued and the weight of the cent was reduced. In 1864 the present cent was issued, also a two-cent piece; in 1865 a three-cent piece (25 per cent nickel) and in 1866 the five-cent nickel were added. All these were subsequently discontinued except the nickel and the one-cent piece. From time to time the coinage of a half-cent piece has been urged.

As opposed to gold, which is the standard money, all other coins are subsidiary or token money. Gold is the only metal which the Government will coin for anyone who deposits bullion at the mints or assay offices. All other coins are made from bullion purchased from time to time as need arises. In none but the gold coins is bullion worth as much as the coin. As already noted the bullion value of a silver dollar is only about one-half its value as a coin. The bullion value of the subsidiary silver coins is worth even less relatively since they contain only 347.22 grains to the dollar as compared with 371.25 grains of pure silver in the silver dollar, while the bullion value of the nickel and bronze (cent) coins is still smaller. Such coins are called "token" coins because their free circulation at full face value is a matter of habit or usage. They are usually of a baser metal than the standard, and are issued only in such quantities as are required to meet the need for small

change in retail trade. Token coins may properly be classed as credit money, since their general acceptance and use depend upon "the good faith and credit of the government evidenced by their redeemability in gold." One objection to the silver dollars, regarded as token money, is that their coin value is so much in excess of the value of their metal content as to make it very profitable for counterfeiters to make them.

Not only is the coinage of gold free and unlimited, but it is also gratuitous, as the government bears the expense of mintage. In most other countries there is a mintage charge, called "seigniorage," which is a certain amount deducted by the government either as bullion or coins. The word seigniorage comes down to us from mediæval times when the "seigneur" or lord had a monopoly of coinage and exacted his quota of all coins made. The operation of seigniorage can be illustrated by comparing the coinage practices of the French government with ours. In the United States a person who takes a certain weight of standard gold to the mint receives the same weight of gold in the form of coin; but in France the government retains as seigniorage 7 4/9 francs out of every 3,100 francs coined.[1] In the United States gold coinage is free, that is, open to everyone, and gratuitous; in France it is free but not gratuitous.[2]

In the case of our silver coinage there has been a popular but loose use of the term seigniorage. During the silver period the great decline in the market price of silver bullion made it possible for the Government to coin silver dollars from bullion which cost only 50 or 60 cents. The difference or gain between the amount paid for silver bullion and the value of the coins made from it amounted to over $143,000,000. This difference, popularly known as seigniorage, but officially called "gain," was put into

[1] Johnson: Money and Currency, p. 179.

[2] The coinage act of 1853 levied a seigniorage of ½ of 1 per cent; when the free coinage of silver was abolished in 1873 the seigniorage on gold was reduced to ⅓ of 1 per cent, and in 1875 it was abolished.

the "silver profit fund," or, in the case of the subsidiary silver, the "minor coinage profit fund."

40. Paper money.—The paper money of the United States consists of gold certificates, silver certificates, United States notes, and Treasury notes, issued by the Government; national bank notes issued by the national banks; reserve bank notes issued by the Federal reserve banks; and Federal reserve notes issued to the Federal reserve banks under authority of the Federal Reserve Board.

The gold certificates, amounting on June 1, 1914, to $1,105,753,619, are paper certificates issued against gold coin or bullion held in trust in the Treasury. They are virtually warehouse receipts for gold stored in the Treasury, and the holders may at any time claim the coin. They are issued to save the wear and tear and the inconvenience incident to the handling of the actual coin. Gold certificates were first authorized in 1863 in denominations of $20 only, and were made receivable for duties on imports. In order to facilitate the resumption of specie payments, their issue was suspended in 1878, but again authorized in 1882. This latter act provided that the issue of gold certificates should be suspended whenever the stock of gold in the Treasury fell below $100,000,000. Their issue was again suspended in 1893 when the Treasury gold reserve was being depleted, but once more authorized in 1900. The gold standard law enacted in that year reaffirmed the provision that the issue of gold certificates should be suspended when the gold reserve in the Treasury should fall below $100,000,000, and further provided that the Secretary of the Treasury may suspend such issue whenever the total amount of United States notes and silver certificates in the general fund of the Treasury shall exceed $60,000,000. Prior to 1907 the smallest denomination of gold certificates was $20, but in that year Congress authorized the issue of $10 certificates. Gold certificates are not legal tender, but they are receivable for customs, taxes and public dues, and national banks may count them as part of their money reserve.

Silver certificates were first issued in 1878 under the terms of the Bland-Allison Act, in exchange for silver dollars deposited in the Treasury or coined under that act. They were first issued in denominations of $10 and upward, but in 1886 the $1, $2, and $5 denominations were authorized. The gold standard act of 1900 provided that silver certificates should be limited to the denominations of $10 and less, except that 10 per cent of the total volume might be issued in denominations of $20, $50 and $100. Silver certificates are not legal tender, but like gold certificates they are receivable for customs, taxes and public dues, and they may be counted in the reserve of national banks. Theoretically neither silver certificates nor silver dollars are redeemable in gold, but in practice they are both exchangeable with gold.

The total amount of treasury notes issued under the Sherman Act of 1890 to pay for silver bullion was $155,931,002. They were issued in denominations ranging from $1 up to $1,000. These notes differed from silver certificates in that they were redeemable in either gold or silver coin at the discretion of the Secretary of the Treasury. The act of 1900 provided that they should be cancelled and retired to an amount equal to the coinage of silver dollars and subsidiary silver from the bullion purchased with these notes. The bullion thus purchased has all been coined and now as the treasury notes are turned in for redemption, silver certificates are substituted for them. There is now only about $2,460,000 of these treasury notes outstanding, so it may be said that they have practically disappeared from circulation.

United States notes were first issued in 1862 to provide the Treasury with funds to meet the enormous expenses of the Civil War, and before that struggle was over the issue of this form of money reached the vast total of $450,000,000. The notes were made legal tender for the payment of all debts, public and private, except customs duties and interest on the public debt. With the resumption of specie payments in 1879, United States notes be-

came acceptable in payment of duties on imports and have been freely received on that account ever since, though the law has not been changed. During the war their value in gold depreciated greatly, causing confusion and loss to the Government and to business, but when specie payments were resumed in 1879 the greenbacks were made redeemable in gold and so returned to a parity with gold. The story of the halting policy of Congress with regard to the retirement of these notes as a result of which the Treasury was brought to the verge of bankruptcy is recited in a previous chapter.[1] Largely through the influence of the greenback party the retirement of the United States notes was stopped in 1878 when an act was passed requiring these notes when redeemed to be paid out again and kept in circulation. The total amount of greenbacks outstanding at the time the act of 1878 was passed was $346,681,016 and this amount has remained in circulation ever since. Greenbacks are redeemable in gold and since 1900 a fund of $150,000,000 has been held in the Treasury primarily to meet this obligation. They have been issued in both large and small denominations, but the gold standard act of 1900 provided that when silver certificates of large denominations were cancelled and small ones issued in their place, a like volume of small United States notes should be cancelled and notes of $10 and upwards substituted. This was intended to bring the silver dollars, as represented by silver certificates, into larger use as pocket money. The increased demand for small bills, however, led to the passage in 1907 of an act providing for the issue of United States notes in denominations of $1, $2, and $5 and the cancellation of an equal amount of the higher denominations.

On June 1, 1914, the total amount of national bank notes outstanding was $751,554,696, or about one-fifth of the total money supply of the country. These notes are issued by national banks against government bonds deposited in the Treasury. In denominations they range from $5 up to $1,000. National bank notes issued against two per cent

[1] Chapter III, Sections 21, 24-27.

government bonds are subject to a tax of ½ of 1 per cent a year and those issued against other bonds 1 per cent. They are not legal tender, but are receivable for all public dues except duties on imports and may be paid out by the Government for all debts and demands except interest on the public debt and in redemption of the national currency. All national banks are required to receive the notes of other national banks at par.

As noted in the preceding chapter, the Federal Reserve Act contemplates the gradual retirement of the national bank notes and the substitution therefor of notes issued by the several Federal reserve banks. National banks are not required to retire their circulation, but may do so any time within twenty years after December 23, 1915. Banks desiring to retire their notes will file an application with the Treasurer of the United States to sell their bonds held in trust in the Treasury, and the Federal Reserve Board may require the Federal reserve banks to buy these bonds. It is expected that in this way there will be a gradual shifting of the bonds held by the national banks to the Federal reserve banks and a substitution of Federal reserve notes for national bank notes. The process is likely to be slow, however, so that national bank notes will remain for many years as a part of our currency system.

The Federal reserve notes, the other form of paper money authorized by the Act of 1913, are not bank notes, but obligations of the Government. At the discretion of the Federal Reserve Board they may be issued to any reserve bank upon the deposit of an equal amount of commercial paper and bills discounted by it for member banks. These notes are further protected by a gold reserve of at least 40 per cent of the amount of notes in circulation, and each reserve bank to which they are issued must also maintain in the Treasury a deposit of gold sufficient to redeem them, but not less than 5 per cent. Reserve banks receiving these notes must pay interest on them at a rate to be fixed by the Reserve Board. They are receivable by all reserve banks and member banks, and for all taxes,

customs, and other public dues, but they are not legal tender for other purposes.

41. All kinds of money at par with gold.—The gold standard act of 1900 made it the duty of the Secretary of the Treasury to maintain all forms of money coined or issued by the United States at a parity of value with gold. In fact, since the resumption of specie payments by the Government in 1879, all forms of money have been kept at a parity with gold, though gold has formed but a small part of the total money supply.

Gold coins always remain at a parity with the gold of which they are made because of the free convertibility of one into the other. The value of gold coin does not rise above the value of its gold content because anyone may take gold to the mint and have it made into coin free of charge. Any tendency for gold coin to become more valuable than gold bullion is checked by the withdrawal of gold from industrial uses and an increase in the amount sent to the mints to be coined. On the other hand, gold coin is prevented from becoming less valuable than the gold it contains because of the steady demand for it for non-monetary purposes. If the bullion value of gold coin should exceed its coin value it can readily be melted and sold as bullion.

Gold certificates are kept at par with gold by the fact that they are always redeemable in the gold coin against which they are issued and which is held as a trust fund in the Treasury. Silver dollars and the silver certificates issued against them are kept at par with gold because in practice they are freely exchangeable at the Treasury for gold. Though the law does not specifically require the redemption of silver dollars in gold, it has long been the settled policy of the Government to preserve a parity between its silver coins and gold, and experience has shown that this can be accomplished only by the prompt redemption of one in the other. The success of this policy depends, of course, upon limiting the amount of silver issued.

The minor coins are kept at a parity with gold because

they are redeemable in lawful money and because there is a steady demand in the retail business of the country for the limited amount issued.

Both United States notes and treasury notes are now redeemable in gold. Treasury notes have so nearly disappeared from circulation that they have ceased to be a factor in our monetary system. Their place has been taken by silver certificates under the retirement provision of the law of 1900. The United States notes which, because of their excessive issue during the Civil War, depreciated greatly in value, returned to a parity with gold when specie payments were resumed in 1879. Reference has been made in a previous chapter to the embarrassment of the Government in the years following the passage of the Sherman Act of 1890 when the excessive issue of silver threatened to deplete the country of its gold. Greenbacks, being redeemable in gold, were returned for redemption as rapidly as reissued until complete exhaustion of the Treasury reserve was anticipated. To prevent a recurrence of a similar situation, the law of 1900 provided that when these notes were redeemed they should be reissued only in exchange for gold. It also provided for a special gold reserve of $150,000,000 to be set aside in the Treasury for the sole purpose of redeeming United States notes and treasury notes. If the gold reserve should fall below $100,000,000 and cannot be increased by exchanges of greenbacks for gold in the general fund of the Treasury, the Secretary must restore it to $150,000,000 by the sale of bonds. The Federal Reserve Act of 1913 reaffirmed the parity provisions of the law of 1900 and provided that in order to maintain such parity the Secretary of the Treasury may borrow gold on the security of bonds or one-year gold notes.

National bank notes are kept at a parity with gold by being made redeemable in lawful money both at the Treasury and by the banks issuing them. Every national bank is required to keep on deposit with the Treasury a sum of lawful money equal to 5 per cent of its outstanding cir-

culation for the redemption of its notes. The new reserve bank notes are issued and redeemed under the same terms and conditions as national bank notes, except that the amount to be issued is limited only to the face value of the bonds deposited. The Federal reserve notes which are obligations of the Government are redeemable in gold on demand at the Treasury or in gold or lawful money at any of the Federal reserve banks. They are secured by reserves in gold of not less than 40 per cent of the notes in circulation and collateral security consisting of notes and bills accepted for rediscount in an amount equal to the notes in actual circulation. Furthermore, each reserve bank to which these notes are issued must keep in the Treasury a 5 per cent gold deposit to redeem them, though this deposit may be counted as part of the 40 per cent reserve required.

In the several ways here outlined, all kinds of money in the United States are kept at a parity with the standard, gold. Despite the defects in our monetary system, there is no longer serious doubt as to the ability of the Government to maintain the gold standard. Some writers regard the greenbacks as a possible menace to the Treasury gold reserve and urge their gradual retirement by the application of surplus revenues of the Government or by a bond issue. The idle hoard of silver dollars in the Treasury is not in itself dangerous, but it involves an unnecessary waste of capital. The silver dollar is credit money in all essential respects like the greenback, its value being due not to the silver it contains, but to the Government's pledge to keep it equal to gold. Silver dollars and silver certificates are indirectly redeemable in gold. One serious objection to this large volume of government credit money, which together with bank notes serves as hand-to-hand money, is that it keeps out of circulation an equal amount of gold. If this credit money were retired, and gold certificates were authorized in the small denominations needed, a corresponding amount of gold in the form of gold certificates would come into circulation. Such an addition to the volume of

gold actually used in the circulating medium would greatly strengthen our currency and credit system.[1]

In the natural course of events, however, our monetary situation tends to become more secure. While the amount of government credit money remains fixed, gold is steadily being added to the monetary stock, thus increasing the proportion of gold and diminishing the proportion of credit money. Furthermore, as the population grows, the existing supply of credit money becomes more widely diffused among the people, and a smaller proportion is held by the banks, thus lessening the probability of presentation for redemption in gold.

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[1] Scott: Money, p. 119.

CHAPTER VI

VALUE OF MONEY AND PRICES

42. Value and price.—Before entering upon the discussion of the important question of the value of money and its relation to prices and profits, it will be helpful to get clearly before us the precise meaning of the terms, "value" and "price." In economics value means exchange power or purchasing power, the exchange relation of a commodity to other commodities. Price is value expressed in terms of money. The value of a bushel of wheat can be determined only by comparing it with other commodities for which it may be exchanged. To make this comparison as simple and easy as possible, it is necessary to have some convenient unit of value. In the United States the unit of value is the dollar composed of 23.22 grains of pure gold, and prices are expressed or registered in terms of dollars and cents.

Now, since price is value expressed in terms of money and value is simply exchange power, the exchange relation of one commodity to another, money itself cannot have any price; a thing cannot be exchanged for itself. Under our coinage laws an ounce of pure gold is worth or is coined into $20.67, and this is sometimes referred to as the price of money (gold).[1] More properly, this is the

[1] Our gold coins are only nine-tenths fine and so their gold content is worth $18.60 per ounce. The "price" of gold is always $18.60 because the Government fixes its price by fixing the weight of the dollar. As an ounce of gold contains 480 grains and a dollar contains by government decree 25.8 grains of gold, an ounce of gold is 18.6 times as heavy as a dollar. Thus gold is always worth $18.60.

mint price of an ounce of gold bullion. When the gold is made into coins it becomes money and has no price. Reference is constantly made in the financial papers to the "price" of money in the loan markets of the world. In this connection price is a loose and convenient term to express the rate of interest on bank loans, the right to draw upon deposits.

But though money has no price it has, like other things, value. By the value of money we mean its purchasing power and this can be determined only by reference to the general level of prices. If the price of wheat rises from 50 cents to a dollar, it may be due either to a change in the relation of the supply of wheat and the demand for it, or to a change in the value of money. If the prices of all commodities except wheat remain stable, the change is traceable to causes affecting wheat alone, but if all prices have tended to advance, clearly the value of money has decreased. A general rise or fall in prices indicates a change in the value or purchasing power of money. It rises as the general level of prices falls, and falls as general prices rise. "The value of money is inverse to the level of prices."

43. What determines value.—The value of money is determined, like that of other commodities, by the principle of demand and supply. In the case of money, however, the conditions affecting supply and demand are somewhat complex and call for some detailed analysis. Demand may be defined as need or desire coupled with ability to pay for the thing desired. The demand for money is measured by the amount of commodities or services which will be given in exchange for it. Now the demand for money is limited, more so than the demand for other commodities. Iron or wheat may be put to many different uses, but money is used primarily for exchange purposes. Men seek to acquire money in order that they may exchange it for other commodities. It has aptly been said that money has no use except to be spent.

The demand for gold arises from two principal uses to

which it is put—its use in industry and the arts, the "arts demand," and its use as a medium of exchange, the "monetary demand." It is generally believed that between one-fourth and one-third of the world's annual production of gold goes into the arts. This industrial demand comes from many sources, from manufacturers of jewelry, watches, plate, ornaments, and the like; from dentists and surgeons; and from users of gold leaf in bookbinding and decoration. Our mints and assay offices refine practically all the gold metal produced in or brought to this country, allowing the depositors of the metal to take the proceeds either in money or in gold bars for industrial use.

The monetary demand includes not only the demand for money as a medium of exchange, but also as a reserve basis for credit, and as a store of value for future exchanges. Let us consider these in inverse order. The amount of money required by individuals and merchants for pocket and till money depends upon the habits of the people, density of population, volume of retail transactions and many other considerations. The pay rolls of manufacturing concerns and corporations call for the use of considerable sums of money, and a very large volume of retail and small store business is done on a "cash" basis. This demand for hand-to-hand money is reduced, however, by the increasing use of the check even in retail transactions. In normal times people keep on hand or stored away only as much money as they expect to use in the near future. When panic comes many people try to convert other forms of property, including bank deposits, into money because this is the one commodity which can always be exchanged.

The monetary demand is affected also by the requirements of governments which must maintain reserves of gold to redeem token and credit money, and by the needs of banks which must always be ready to meet their note and deposit obligations in money. The large stores of money in banks are not really hoarded or idle; they supply the foundations of credit which does several times as much work as the money itself would if in actual circula-

tion. In the last few decades many countries have adopted the gold standard, which has necessitated the creation of gold reserves sufficient to insure the convertibility of other forms of money in circulation. In the United States, for example, over $346,000,000 of greenbacks are supported by a gold reserve of $150,000,000 held in the Treasury. It is estimated that more than one-third of the entire stock of gold is required to satisfy the reserve demand. Changes in seasonal requirements and fluctuations in international trade affect the reserves and so influence the demand for and the value of money.

In a general way it may be said that the demand for money as a medium of exchange depends upon the volume of exchanges to be affected by it, though it must constantly be borne in mind that credit is the great exchange medium.[1] The volume of exchanges is subject to many influences and fluctuations. Generally speaking an increase in population increases the volume of business. But the per capita test is a poor criterion of the real demand for money; business may be bad with a larger population and brisk with a smaller one. Again, it may be said that the demand for money increases with increase in the volume of goods produced and actually exchanged, though this may be offset by an expansion of credit and by an increase in the supply. Improved business organization and consolidations which dispense with middlemen and lessen the number of exchanges between producer and final consumer tend to lessen the need for money, while increasing division of labor which makes a larger number of people dependent upon others for their supplies tends to increase the need for a medium of exchange.

Another important influence affecting the volume of exchanges and the demand for money is the so-called "rapidity of circulation," that is, the number of times money is exchanged for goods in a year or any given period. Assuming for the moment that the volume of business and the price level remain the same, an increase in the rapidity

[1] But see Laughlin: Principles of Money, p. 325.

of circulation of money will lessen the quantity of money required to effect the business exchanges, while a slower rate or velocity of circulation will increase the quantity of money needed. If the velocity of circulation be doubled and the volume of exchanges remain unchanged, prices will be doubled. But of course the volume of exchanges does not remain unchanged. Trade, also, has its rapidity of circulation or rate of turn-over, depending upon general business conditions, the habits of the people, legislation, and many other factors. If, therefore, the number of business exchanges be doubled while money remains unchanged, prices will fall by one-half.

44. Supply of money.—Conditions which govern the supply of money are less complex than those affecting the demand. In the first place we must distinguish between the supply of money and the supply of the precious metals. As already noted, a considerable proportion of the world's production of gold and silver is used for non-monetary purposes. The industrial consumption varies not only with changes in the value of gold, that is, in the general price level, but also with changes in people's habits and tastes. The absorption of gold by the arts is in general lost to the monetary supply. Another important drain upon the world's supply of specie that otherwise would be available as money is the steady flow of gold and silver to Oriental countries, notably India, where vast amounts have been absorbed by hoarding and for ornaments.

It is sometimes said that the value of gold depends upon its cost of production at the poorest mine, or, as the economists express it, upon the marginal cost of production. But, as Professor Taussig and other writers have pointed out, there seems to be but little correspondence between the cost of gold and its value.[1] This is due to the durability and comparative steadiness of the total stock of gold and to the irregularity in the discovery of new supplies. It is estimated that the world's total stock of gold in 1850 was between $2,000,000,000 and $3,000,000,000 and that

[1] Taussig: Principles of Economics, Vol. I, Ch. 19.

the present stock is over $14,000,000,000. In the decade 1841 to 1850 the annual production averaged $36,000,000, which was three times the average annual production for the preceding half of the century. In the decade 1851 to 1860 the annual average rose to $133,000,000. Since then the annual production has increased steadily but with great periodic fluctuations, as, for example, with the discovery of gold in South Africa.

It should be remembered that gold, unlike other commodities such as iron or wheat which when once prepared for use or consumption are withdrawn from the market, remains indefinitely as a part of the monetary supply. The annual additions of new gold, therefore, affect but slightly the world's total stock of money and its value is but slowly affected. But in time, changes in the rate of annual increase make themselves felt. A lower cost of producing money in so far as it increases the quantity of money tends to raise the general level of prices.

The supply of money should be distinguished from the supply of money utility or value. The usefulness of money, that is, its power of serving, increases as its value increases. This characteristic is peculiar to money. Wheat gets its value from its food utility and this would not be changed in the least if the value of wheat were doubled. A bushel of wheat when worth a dollar will feed no more people than when worth fifty cents. But the more money is worth the more commodities it will exchange. As Professor Johnson says, "The desired amount of money utility will always be in existence, for it is created by the need for it. If the supply of money is $1,000,000, the need for value in a form immediately exchangeable will give to that million dollars a purchasing power sufficient to render it capable of transacting all the business of the community. As the population increases, the community may be obliged to send out to get more flour or wheat, but it will be under no such necessity of increasing its supply of money, for the value of the existing supply will increase as the demand increases; in other words, the purchasing

power of each money unit will increase and the prices of goods fall."[1]

45. The quantity theory of money.—As stated by the early economists, the quantity theory of money holds that the value of money depends on its quantity, and that, other things being equal, prices vary directly with the amount of money in circulation.[2] This bald statement of the theory, however, disregards certain fundamental considerations. In the first place, the value of money, as of other things, depends neither upon supply alone nor upon demand alone, but upon the balancing of supply and demand. As we have seen, the level of prices may be influenced on the one hand by changes in the rapidity of circulation as well as in the quantity of money, and on the other hand by changes in the volume and velocity of exchanges. This theory also disregards credit operations and the use of money as a reserve and as a store of value. The statement, therefore, that the value of money varies with its quantity, holds good only under the simplest conditions.

A more nearly exact and acceptable statement of the quantity theory is that the value of money or the general level of prices depends on the total purchasing power expressed in terms of money. As expressed by Professor Irving Fisher, the purchasing power of money, that is, the general level of prices, depends on five factors: the quantity of money in circulation, its velocity of circulation, the quantity of deposits subject to check, its velocity, and the volume of trade. These groups of causes and their effects, prices, he connects by an "equation of exchange," a statement in mathematical form of the total transactions effected in a given community in a certain period, and he shows that "prices must as a whole vary proportionally with the quantity of money and with its velocity of circulation, and inversely with the quantity of goods exchanged."[3] The

[1] Johnson: Money and Currency, p. 28.

[2] For a criticism of this theory, see Laughlin: Principles of Money, Chs. VII-IX; and Scott: Money and Banking, Ch. IV.

[3] Fisher: Purchasing Power of Money, p. 18.

groups of causes or "magnitudes" determining the purchasing power of money are, in turn, effects of antecedent causes which he summarizes as follows: "The volume of trade will be increased, and therefore the price level correspondingly decreased, by the differentiation of human wants; by diversification of industry; and by facilitation of communication. The velocities of circulation will be increased, and therefore the price level increased, by improvident habits; by the use of book credit; and by rapid transportation. The quantity of money will be increased, and therefore the price level increased, by the import and minting of money, and antecedently by the mining of the money metal; by the introduction of another and initially cheaper money metal through bimetallism; and by the issue of bank notes and other paper money. The quantity of deposits will be increased, and therefore the price level increased, by extension of the banking system and by the use of book credit. The reverse causes produce, of course, reverse effects." [1]

As evidence of the soundness of their position, advocates of the quantity theory of money point to the movement of prices in the past which has been in great cycles, with rising prices in a period of increasing production of gold and silver and falling prices in a period of diminished output of specie. Thus, it is claimed, the revolution of prices in the sixteenth century was due to the discovery of the South American and Mexican silver mines and the introduction into Europe of great quantities of new specie. By the middle of the seventeenth century such large additions had been made to the world's stock of gold and silver that new supplies had less effect upon their value and prices were fairly stable. A steady increase in population, wealth and the volume of exchanges tended to offset the increased supply of specie. During the first half of the nineteenth century this expansion of business increased even more rapidly than the new supplies of specie and prices trended downward.

[1] *Ibid.*, p. 149.

The discovery of very rich gold deposits in California and Australia about 1850 added enormously to the world's supply of gold. Rough estimates show that in the quarter century following 1850 as much gold was added to the world's stock as had been produced during the whole previous period since the discovery of America. In the ten years following 1850 the monetary supply of money had doubled.[1] It might be expected that this rapid and enormous increase in the supply of money would be attended by a marked increase in prices. Prices did rise and remained at a comparatively high level until about 1875, but the advance of 20 to 30 per cent was not in proportion to the increase in the new money supply. This comparatively slight increase in prices is explained on the grounds, first, that the volume of business increased greatly during this period, causing a larger demand for money; second, that the new supplies of gold were added to an existing stock composed of both gold and silver under bimetallic systems then prevailing; and, third, that a considerable amount of the new gold simply displaced silver which was exported to the Orient.[2]

A period of falling prices set in about 1873, and continued until about 1896, at which time the price level was some 50 per cent lower than in 1870, indicating that the purchasing power of gold had doubled. It will be remembered that in the decade following 1870 the United States and several European countries discarded silver as a standard of prices and adopted the gold standard. This was a period, too, of rapid expansion of trade and industry traceable in part to the construction of great railway systems. The resulting monetary demand for gold coming at a period when the production of gold was declining, increased its value greatly and caused the long period of low prices. The past twenty-five years have witnessed another phenomenal increase in gold production, due mainly to the discovery of new mines in South Africa and in the Klon-

[1] *Report of the Director of the Mint* (1913), p. 315.

[2] Taussig: Vol. I, p. 259.

dike. In the decade following 1880 the world's annual output of gold averaged about $100,000,000 a year; in the year 1900 it amounted to $254,000,000; and in 1912 to $466,000,000. By 1896 prices began to reflect the increase in the new gold from South Africa and since that time the tendency has been steadily upward. Doubtless the enormous increase in the supply of gold during the past two decades has been an important factor in the world-wide rise in prices.

46. The probable future of gold production.—The steady rise in prices in recent years, due in part at least to the increased supply of gold, has provoked much discussion as to the probable future of gold production and its influence upon prices. Throughout all modern times the search for gold has had a peculiar fascination for men of all kinds and nationalities. Prospecting for gold has been carried on through the centuries and mines have been worked without much calculation of yield or cost. Prospectors have been buoyed up with the hope of some day "striking it rich." But in recent years luck and chance have given place to careful calculation and scientific business methods; instead of a lottery, gold mining has become an industry. Powerful hydraulic machinery is now used in alluvial mining to wash down whole hillsides into the sluices, there to be treated with quicksilver or subjected to other processes for the recovery of gold. In quartz mining the rock containing gold is crushed in great plants, where the ore is recovered by mixing with quicksilver to form an amalgam from which the gold is easily separated. Gold when found in chemical combination with sulphur is extracted by either the chlorine or the cyanide process. As a result of recent improvements and of large-scale operations, deposits of low-grade ores, which under earlier methods could not be worked at a profit, are now being made to yield large returns. It is largely from these deposits of low-grade ores operated on a strictly scientific and business basis that the great increase in the supply of gold and silver in recent years has come.

Many believe that with the placing of the gold-mining industry on a business basis comparable in stability with iron or coal mining "the world need not fear any great scarcity of gold in the future, or any long period of falling prices and industrial depressions, for any increase in the value of gold should promptly lead to an increase of the supply."[1] Others hold that the production of gold has reached its maximum and that prices will not go much higher. It is generally recognized, of course, that a considerable part of the advance in commodity prices has been due to the fact that production of food products and other staples has failed to keep pace with the increased consumption due to the rapid growth of city population. Under the stimulus of high prices and large profits there is likely to be a great increase in the production of farm products which normally should bring about a fall in their prices.

On the side of gold supply some authorities hold that influences are at work which will bring about a decrease in the production of gold. The rising prices which increase the profits of other industries compel the gold-miner to pay more for tools, machinery, supplies and labor. This may so reduce the margin of his profits that he will be forced to abandon the mining of low-grade ores, and so gold production will decline. Professor Meade believes that this movement is now taking place in every gold-mining country. He concludes that "in view of the small increases in the annual production of gold, and in view also of the certainty that the next decade will see large increases in the production of commodities and in the demand for money, it is unreasonable to expect that prices will much longer continue to increase."[2] This opinion finds support in the annual reports of the Director of the Mint, which show that the world's production of gold has been practically stationary for the last five years. The slight annual increases are added to an enormous existing stock of gold, so that the rate of increase is small.

[1] Johnson: Money and Currency, p. 209; see also, Fisher: Purchasing Power of Money, p. 248.

[2] The Careful Investor, p. 283.

On the other hand, the demands for money are constantly increasing, notably for bank and government reserves. In this connection Professor Meade notes that in 1900 the national banks of the United States held in specie, mostly gold, $373,000,000, while in 1911 their holdings of gold had reached $711,000,000. "Every time a new bank is organized, and the number is rapidly increasing, a certain amount of money must be withdrawn from circulation and put into the bank's reserve. This represents an increasing demand upon the world's money supply. What is going on in the United States is but typical of development in other countries. Canada and South America are rapidly enlarging their banking reserves. Immense amounts of gold will be sent to China to assist in the industrial development of that country. In every part of the world, in vast regions, railroads are being constructed, mines opened, farms developed, and money—that is, gold —required."[1] The possible extent of this absorption of gold by new countries is shown in the case of India, which for two or three years past has taken 28 per cent of the world's production of gold.[2] Professor Fisher takes the opposite view, holding that the outlook is toward a continued rise in prices due to a continued increase in the gold supply.[3]

47. Index numbers.—The value of money is measured, like the value of everything else, by the quantity of other commodities for which it can be exchanged. But because the values of commodities, as well as of money, are constantly changing it is not easy to measure with precision the variations in the purchasing power of money. In our discussion of the relation of money to prices we have considered only the general level of prices and have assumed that all prices move up and down together. But this is seldom the case. Some goods are rising in price while others are falling. Changes in the general price level are slow and gradual,

[1] *Ibid.*, p. 282.

[2] *Report of the Director of the Mint* (1913), p. 66.

[3] Fisher: Purchasing Power of Money, p. 248; see also, *American Economic Review*, Sept., 1912, pp. 531-558.

but changes in the prices of individual goods, due to causes affecting demand and supply, may be sharp and sudden. Even when the fact of a rise or a fall in prices is evident, the extent of the change is difficult to measure.

To observe and register changes in the general trend of prices "index numbers" are used. An index number represents the price of a group of commodities, or the average price during a given period, which is used as a basis or standard with which to compare the price of these commodities at other dates. Suppose, for example, that the average price per bushel of barley for the period 1890–1899 was 48 cents, while the average for 1910 was 60 cents; then if the average price for the earlier period be represented by 100, called the "base," it will be seen that the relative price for 1910 is 125, that is, the index number shows a rise in price of 25 per cent. By grouping and comparing the prices of a large number of representative commodities, so that the influences affecting the value of different groups will counterbalance each other, a means is obtained of indicating the changes in the purchasing power of money from period to period.

The following simple example illustrates one method of constructing price tables and index numbers:

	1900		1914	
	Price	Base	Price	Percentage to Base
Steel rails, per ton	$20.00	100	$28.00	140
Wheat, per bu	.80	100	.96	120
Coal, per ton	4.00	100	3.60	90
Cotton, per lb	.12	100	.12	100
Sugar, per lb	.05	100	.05½	110
Total		5)500		5)560
		100		112

In this table we have two sets of hypothetical prices, one for 1900, the other for 1914. The prices for 1900 have been taken as the basis at 100 per cent and the changes in prices in 1914 calculated with reference to this base. Reduced to the simple arithmetical mean, the index number for 1900 is 100; that for 1914 is 112. It appears that while some prices have advanced and others have fallen, the general level of the commodities considered has risen 12 per cent. This rise of prices of 12 per cent indicates a decline in the value of money with respect to the commodities included in the table. It means that the purchasing power of the dollar in 1914 is $\frac{100}{112}$, or 89 per cent of its purchasing power in 1900. In other words, a rise of 12 per cent in the general price level is equivalent to a fall of 11 per cent in the value of money. The general law may be expressed thus: Changes in the index number show direct variations in the general price level; changes in its reciprocal show variations in the value of money. If, instead of the five commodities used in the illustration, a table could be constructed including the prices of all commodities we should be able to derive index numbers which would register changes in the purchasing power of money. Most systems of price tables include a sufficiently large number of representative articles to show that though the prices of some articles may have declined while others have advanced, yet the general movement of prices has been in the direction indicated by the change in the index number.

The method of obtaining index numbers by the simple arithmetical average is open to the objection that it tends to exaggerate the influence of rising prices. Suppose, for example, that within a given period the price of a particular article has doubled while the price of another article has fallen by one-half. The index number after the change would be 125, indicating a decline of 80 per cent in the value of money, whereas it would appear that the value of money had not changed, since it had gained as much in the one case as it had lost in the other. To overcome this

defect various methods have been suggested in computing index numbers, as, for example, the geometric mean, which is the square root of the product of two prices, the cube root of the product of three commodity prices, and so on for any number of articles. Another method uses the median, in which price quotations for a given period are arranged in numerical order and the figure which has an equal number of quotations above and below it is taken as the mean. Still another method is based on the harmonic mean, which is computed from the reciprocals of a series of index numbers. These methods are intended to offset the effect on the index number of a very high or low price of a single article or a small number of articles. In general, however, these various methods yield substantially the same results.

The method of the arithmetical mean is open to the objection, also, that it gives equal importance to all articles included in the price tables, whereas we know that our family budgets are much more seriously affected by an increase of fifty per cent in the price of wheat or coal than by a similar increase in the price of cutlery or silks. To correct this defect a system has been devised of "weighting" the articles according to their relative importance as determined by total consumption or production. The results obtained, however, by the weighting of price tables, especially where these embrace a large number and a wide range of commodities, are not materially different from those obtained by the simple or unweighted method. At best, price tables can only be approximate, indicating the general trend of prices.

48. Different types of price tables.—The most familiar price tables are those of Jevons, Palgrave, Sauerbeck, and the *London Economist* in England; Soetbeer and Conrad in Germany; and Falkner-Bureau of Labor, Dun's *Review* and Bradstreet's in the United States.[1] One of the oldest

[1] For a full statement of price tables, with diagrams and bibliography, see Laughlin: Principles of Money, Ch. VI; see also, Falkner's Aldrich Report on Wholesale Prices, Wages and Transportation, Senate Document, 52d Cong., 2d Sess., No. 1394.

and best known tables of index numbers is that published by the *London Economist*. Starting with the base period, 1845–1850, this price table has been published annually (except for 1852 and 1854–1856) down to the present. It includes only twenty-two articles and is based on the unweighted arithmetical principle. Adopting 100 as the average price of each of the twenty-two articles, the basic index number for 1845–1850 is 2,200 and the index number for succeeding years must be compared with that number rather than with 100, as in most other price tables. The *Economist* table is criticized on the grounds that, since it is based on a small number of articles, a large increase in the price of any one article causes an excessive change in the index number; and that the commodities are badly chosen, there being, out of the twenty-two, four in which cotton is the principal element.

Professor Jevons published his notable study of prices in 1863. He based his calculations upon the prices of thirty-nine articles during the period 1845–1850, and worked out index numbers on the geometric average for the period 1844–1862 to show the effect on prices of the new gold from California and Australia. Another well-known table of English prices is that of Mr. Augustus Sauerbeck, published annually in the *Journal of the Royal Statistical Society* since 1886. He uses as the base line the average prices of the years 1867–1877 and computes his index numbers by a simple unweighted arithmetical average. The Sauerbeck index number is criticized because it includes only thirty-seven articles,[1] and these are all staple raw products, such as wheat, coal and iron. The Soetbeer index number was made from the commodities entering the port of Hamburg and covered the period from 1847 to 1891. Soetbeer took the total quantity and price of each article and computed the average price on a simple arithmetical basis.

The most important table of American prices is that

[1] The Sauerbeck index number as continued in the *London Statist* is based on 45 commodities.

prepared by Dr. Roland P. Falkner for the Senate Committee on Finance in 1893.[1] In compiling this table ninety commodities were used for the period 1840–1891 and between 1860 and 1891 two hundred and twenty-three commodities were included. Prices for the year 1860 were selected as the base and by using the method of the arithmetical mean, tables were made both from weighted and unweighted prices. The principal groups included in the two hundred and twenty-three articles were: food, cloths and clothing, fuel and lighting, metals and implements, lumber and building materials, drugs and chemicals, house furnishing goods, and miscellaneous articles such as powder, rubber, soap and starch. To show the effect of price changes upon the working classes Dr. Falkner compiled price tables in which various articles were weighted according to their importance in the average family budget. It will be remembered that from 1862 to 1879 the standard money of this country was not gold, but the depreciated greenback. In order to show what the index number would have been if gold had been the actual standard, Falkner in his table reduced the greenback prices for the years 1862–1879 to the gold standard, using the premium on gold as the measure of the depreciation of paper money.[2] This method, though the only one available, was not exact, since "paper prices evidently rose at times to compensate for the uncertainty of the standard."[3] The list of prices in the Aldrich Report extended only to 1891, but Dr. Falkner subsequently prepared for the Department of Labor a series of wholesale prices from 1890 to 1899, which continued as far as practicable the method of the earlier report, though because of various changes only ninety articles are common to the two sets of tables. With some modifications the Falkner price tables have been continued by the Bureau of Labor; they are based upon the average

[1] Aldrich Report on Wholesale Prices, Wages and Transportation.

[2] Compare the second and third columns of the table on next page.

[3] Laughlin: Principles of Money, p. 216.

STANDARD INDEX NUMBERS[a]

	Falkner (Base 1860) Gold	Paper (1862–1878)	U. S. Department of Labor (Base 1890–1899)	Sauerbeck (Base 1867–1877)	*Economist* (Base 1845–1850)	Soetbeer (Base 1847–1850)
1860	100.0	.....	.....	99	122	121.0
1861	100.6	.....	.....	98	124	118.1
1862	114.9	117.8	.....	101	131	122.6
1863	102.4	148.6	.....	103	159	125.5
1864	122.5	190.5	.....	105	172	129.3
1865	100.3	216.9	.....	101	162	122.6
1866	136.3	191.0	.....	102	162	125.8
1867	127.9	172.2	.....	100	137	124.4
1868	115.9	160.5	.....	99	122	122.0
1869	113.2	153.5	.....	98	121	123.4
1870	117.3	142.3	.....	96	122	122.9
1871	122.9	136.0	.....	100	118	127.0
1872	127.2	138.8	.....	109	129	135.6
1873	122.0	137.5	.....	111	134	138.3
1874	119.4	133.0	.....	102	131	136.2
1875	113.4	127.6	.....	96	126	129.8
1876	104.8	118.2	.....	95	123	128.3
1877	104.4	110.9	.....	94	123	127.7
1878	99.9	101.3	.....	87	116	120.6
1879	96.6	96.6	.....	83	100	117.1
1880	106.9	.....	.....	88	115	121.9
1881	105.7	.....	.....	85	108	121.0
1882	108.5	.....	.....	84	111	122.1
1883	106.0	.....	.....	82	106	122.2
1884	99.4	.....	.....	76	101	114.2
1885	93.0	.....	.....	72	95	108.7
1886	91.9	.....	.....	69	92	104.0
1887	92.6	.....	.....	68	94	102.0
1888	94.2	.....	.....	70	101	102.0
1889	94.2	.....	.....	72	99	106.1
1890	92.3	.....	112.9	72	102	108.1
1891	92.2	.....	111.7	72	101	109.2
1892	87.6	.....	106.1	68	97	.....
1893	87.2	.....	105.6	68	96	.....
1894	79.3	.....	96.1	63	95	.....
1895	77.2	.....	93.6	62	87	.....
1896	74.6	.....	90.4	61	91	.....
1897	74.0	.....	89.7	62	88	.....
1898	77.1	.....	93.4	64	86	.....
1899	83.9	.....	101.7	68	87	.....
1900	91.2	.....	110.5	75	97	.....
1901	88.5	.....	108.5	70	97	.....
1902	93.2	.....	112.9	69	89	.....
1903	93.7	.....	113.6	69	91	.....
1904	93.3	.....	113.0	70	100	.....
1905	.....	.....	115.0	72	99*	.....
1906	.....	.....	122.5	77	102.5	.....
1907	.....	.....	129.5	80	110	.....
1908	.....	.....	122.8	73	121	.....
1909	.....	.....	126.5	74	106.5	.....
1910	.....	.....	131.6	78	110	.....
1911	.....	.....	129.2	80	113	.....
1912	.....	.....	133.6	85	125	.....
1913	.....	.....	135.2	85	122.2	.....

* New base 1901-1905.

[a] Based on Johnson's Money and Currency (p. 112), down to 1904; data for subsequent years supplied by the Commissioner of Labor Statistics.

prices for the period 1890–1899 and include over 250 commodities.[1]

Other convenient tables of prices are those published each month by Dun's and Bradstreet's, the former including 350 articles, the latter 106. In both cases the index number is obtained by the simple process of summation, that is, by adding together the prices of all articles included. Tables showing the movement of prices in Canada are published by the Canadian Department of Labor.

No system of index numbers yet devised can be said to give an accurate indication of changes in the purchasing power of money over a long period of years. In the first place the index number shows the relation of the value of money to commodities only, and takes no account of such important items as wages and rent. To determine the value of money with respect to labor it would be necessary to construct an index number based upon wages, but wages vary so widely in different communities and in different employments that it is difficult, if not impossible, to determine the average rate of wages. Then, again, index numbers are based upon wholesale prices rather than retail prices, due in part to the difficulty of obtaining reliable data for retail prices. Though a rough correspondence exists between wholesale and retail prices, the relation is not sufficiently close or constant to make an index number based on wholesale prices an accurate reflection of the purchasing power of money with respect to all goods. Still further, changes in human wants are constantly going on, so that commodities of great importance in one period may become of slight importance in another period, while entirely new articles may come into use. These changes must be taken into account if the index number is to serve its purpose. Frequent revisions of the tables may meet this difficulty in part, but under such conditions absolute accuracy cannot be expected.

Index numbers are constructed with reference to the

[1] See *Bulletin of the Bureau of Labor Statistics*, Wholesale Prices, 1890 to 1912, p. 149.

purpose to be served. If, for example, we want to know the effect of changes in the price level on the workingman retail prices should be used and rents and wages should be taken into account. But, if the purpose is simply to indicate the changes in the general purchasing power of money, then wages and rent can be excluded, for they are already counted in the prices of commodities. For this purpose, too, wholesale prices serve just as well as retail prices. In general, it may be concluded, a table based upon the prices of representative articles of general consumption serves fairly well to indicate changes in the value of money.

49. Transmission of price changes.—It is a familiar economic phenomenon that price changes are not uniform or instantaneous, but spread in waves from commodity to commodity and from country to country. This can best be understood by tracing the effect of new supplies of gold. When the miner sends his gold to the assay office and thence to the mint he receives at once the money equivalent for it at the rate of $18.60 an ounce. This money he will either spend or deposit in a bank. If he spends it, his purchases of goods will quicken the demand for them and so tend to raise retail prices. The merchant who receives the money uses it to replenish his stock and his buying will tend to increase wholesale prices, and so on through the entire business cycle. If the miner, instead of spending his money, deposits it in a bank similar results will follow. With increased gold reserves the banks will have larger funds available both for time loans to merchants and for call loans to stock exchange brokers.[1] Lower interest rates, which are likely to accompany increased bank reserves, will quicken stock exchange transactions in securities, and increase dealings in, and the prices of, speculative staples such as cotton and grain. The merchant and the manufacturer, also, find it easier to borrow money, and so with rising prices and improving markets the demand for general merchandise and for labor is stimulated.

[1] Johnson: Money and Currency, p. 128.

In a period of rising prices like that of recent years, wages are generally last to respond to the change. The wage-earner and the recipients of fixed incomes, therefore, are at a disadvantage in that they have to pay higher for all commodities while their money incomes remain fixed or advance but slowly. In general it may be said that a rise in price is felt first in speculative securities and commodities, then in the wholesale business, next in the retail trade, and last in wages and rent.

The disturbance of prices caused by a large increase in the supply of money without a corresponding increase in exchanges is transmitted not only from commodity to commodity and from group to group, but also from country to country. The country producing and using the new supplies of gold will ordinarily be the first to feel the effect of the resulting rise in prices, but it cannot permanently retain more than is needed, unless the new gold is substituted for other forms of money which are retired to make a place for it. Rising prices in the gold-producing country will tend to increase imports and decrease exports of merchandise and so create an international balance that will necessitate the export of gold. Thus, in time each country will get its proportionate share of gold and prices in all gold standard countries will tend to readjust themselves at the higher level.

50. Effect of price changes.—Periods of rising prices are generally periods of business prosperity and of "good times" to the community as a whole. With a rise in prices business profits tend to increase and a general feeling of confidence spreads among all classes. Confidence in the safety and profit of business ventures extends from group to group, resulting in a larger production of wealth and an increase in the purchasing power of the entire community. At such times there is grave danger that business confidence may lead to production beyond the normal needs of consumption, and to an era of speculation that may result in a business crisis.

On the other hand, when prices are falling, that is, when

the value of money is rising, business is depressed and sluggish. The effect of falling prices generally follows the same order of progression from one economic group to another as was noted in the case of rising prices. If the supply of money does not keep pace with the demand, bank reserves are reduced, loans are called and interest rates, especially on call loans, tend to stiffen. Dealers in stocks and bonds and speculative commodities begin to sell their holdings at a sacrifice. Lack of confidence and uncertainty spread to general business, sales of manufactured products begin to fall, buying of raw materials slackens, profits decline, and people begin to talk of the "hard times." In periods of falling prices the wage-earner and the salaried man seem to be benefited because their wages are the last to fall. This benefit, however, is more apparent than real, for when industry slackens great numbers of laborers are laid off entirely or find employment only on part time. In such case any gain to them through lower prices is more than offset by a decline in money income. Falling prices benefit only those in receipt of fixed incomes, as, for example, bondholders and annuitants.

The foregoing summary of the effects of a change in the value of the standard serves to show the general tendency of a depreciating standard, that is, of rising prices, to stimulate production to the point possibly where overconfidence may lead to an unwise use of capital and labor; and of an appreciating standard to discourage the production of wealth and so to bring hardship upon all. As Professor Johnson well says, "It is this effect upon production which makes the question of price an all-important one. Money is much more than a mere go-between or messenger, and cannot be left out of account when considering the forces that direct the productive efforts of men, for changes in its value are universal in their effect." [1]

Changes in the purchasing power of money affect all economic classes: wage-earners, capitalists and enterprisers;

[1] Johnson: Money and Currency, p. 171.

producers and consumers; speculators and investors. The most marked effect of such changes can be seen as between the debtor and creditor classes. It is generally understood that a fall in prices or a rise in the purchasing power of money benefits the creditor, while a rise in prices benefits the debtor. When prices fall between the time of incurring a debt and the time for paying it, the debtor upon returning the amount of money borrowed has to return a larger amount of goods; when prices rise the debtor returns less in the way of goods. For short periods of time changes in prices are generally slight and have but little effect upon the relations between debtor and creditor. As Professor Taussig says, "A change of five per cent or ten per cent, as registered in an index number, would probably be little noticed by most debtors and creditors. Each would be concerned only with the particular articles bought or sold by him; and these articles might remain unchanged in price, or move in a different direction from the index numbers, or in a different degree. It is only abrupt and marked changes in prices that disturb the usual approximate equity of debt payments. Under a specie standard such changes do not take place; this much is brought about by the durability of specie and the consequent slowness of changes in the total stock." [1]

But though exchanges that are settled at once are unaffected by changes in the value of money, the situation is quite different in the case of debts having a considerable time to run. The great majority of business transactions to-day are done on a credit basis. In the interval between the creation of a debt and its payment months or years later, a change may occur in the standard by which the amount of money given in settlement of the debt may have a considerably greater or less purchasing power than it had when the debt was contracted.

51. The multiple or tabular standard.—Various proposals have been made from time to time to correct fluctuations in the price level and so to preserve a just relationship

[1] Taussig: Principles of Economics, Vol. I, p. 297.

between debtors and creditors.[1] In an earlier chapter we have referred to the now widely discredited scheme of bimetallism. Perhaps the most plausible proposal to remedy the effects of falling and rising prices on debtors and creditors is the so-called multiple or tabular standard. The idea back of this plan is that when a man lends money he parts with a certain quantity of purchasing power, and that when the debt is repaid he should receive as principal the same quantity of purchasing power. It proposes that an official commission shall keep accurate records of the prices of a great many commodities and compute index numbers showing the changes in the price level from time to time. On the basis of these calculations the borrower shall repay in such a way that the lender shall receive the same quantity of goods as he parted with. Thus, for example, if in a given period prices rise, as shown by the official index numbers, from 100 to 110, the debtor who has borrowed $100 should repay $110, for $110 is worth in goods only what $100 was worth before. If the index number falls from 100 to 90 the debtor should pay back $90 for the $100 borrowed. Thus, in theory at least, the debtor would return the same income in goods as he received and the creditor would receive in payment an amount of consumable goods equivalent in quantity to what he had loaned.

This plan, however, is open to various objections.[2] In the first place it is based upon the use of index numbers, which, as we have seen, cannot be depended upon to record with certainty the actual changes in prices. Again, by returning the same amount of goods, the benefit of a rise in prices would accrue wholly to the creditor and those of a fall in prices to the debtor. Furthermore, in the usual plan suggested no account is taken of the relative importance of wages and rents to other expenditures. But

[1] For a full treatment of these proposals, see Laughlin: Principles of Money, Ch. III; also, Kinley: Money, Ch. XIII.

[2] Fisher: Purchasing Power of Money, pp. 335-336; see also, "Objections to a Monetary Standard," *American Economic Review*, March, 1913, pp. 1-19.

the purchasing power of money over human services and goods cannot be correctly stated if compared only with goods. From a practical viewpoint, the tabular standard is defective in that for short-time debts it is not needed, and for long-time obligations it offers no assurance of greater justice between debtor and creditor than where the money standard is used. It is not proposed that the tabular standard should entirely displace the metallic standard, but rather that it should supplement the latter. The multiple standard as the sole standard would reduce exchanges to the general condition of barter, which under modern conditions would be impossible. Such a standard would necessarily include a list of goods with prices quoted in terms of the money standard. It would be necessary, therefore, for the business man to keep his accounts partly in tabular standard units and partly in money units. Under such a system an exact balancing of receipts and expenditures would be difficult if not impossible. Finally, the multiple standard would introduce into all transactions involving deferred payments, an element of uncertainty that would be most confusing. As stated by Professor Taussig: "No man would know when contracting a debt what he would be called on to repay when it became due. He would have to watch each monthly or quarterly report of the index number bureau, and guess in the meanwhile how his affairs would have to be adjusted. It is true that, as things now are, changes in the prices of the particular things which each person buys and sells cause uncertainty. But everyone in business necessarily watches these changes and adapts his doings from day to day to the shifting conditions; indeed, so to watch them is a main part of business. To add to this inevitable cause of uncertainty another from unpredictable changes in index numbers would make all industrial operations irregular and halting."[1]

Many other standards of deferred payments have been proposed, for example, the wheat, labor, and utility standards, but none of these offers any hope of supplying an

[1] Taussig: Principles of Economics, Vol. I, p. 302.

ideal standard. Indeed, an invariable standard is neither possible nor desirable. As pointed out by Professor Kinley, the demand for any standard commodity to be used in making payments is one of the causes of its value, and this demand is constantly changing. Moreover, even if an invariable standard could be found by means of which changes in the general price level could be measured and adjusted, it could not do the same for changes in the prices of particular goods, for one article may rise in price and another fall or remain stationary while the general price level is declining, and it is in the prices of particular articles that debtors and creditors are interested. Furthermore, an invariable standard is not desirable because "it would throw the benefits of industrial progress into the hands of the owners and producers of goods; whereas a perfect standard should distribute these benefits among the different classes of society."[1]

It is now generally agreed that a perfectly just standard of deferred payments is not possible of attainment. All that can be expected is the nearest practicable approach to justice between debtor and creditor classes. Despite its defects the gold standard which has been adopted by all the great commercial nations of the world seems to involve the least injustice to both. The disadvantages of the gold standard are far outweighed by its advantages, and though its advantages sometimes inure to the benefit of debtors and sometimes to the benefit of creditors, yet it brings comparative stability to prices and a large measure of justice to all classes. It is not likely soon to be superseded by any other standard.

52. The compensated dollar.—To secure stability in the purchasing power of money, Professor Irving Fisher has proposed a plan which has come to be known as the "compensated dollar,"[2] and which has received much favorable comment by economists and publicists all over the world. This scheme involves a combination of the tabular standard

[1] Kinley: Money, p. 269.
[2] *Quarterly Journal of Economics*, Feb., 1913.

with the principles of the gold exchange standard. It is based upon the idea that since "uncertainty in the purchasing power of the dollar is the worst of all business uncertainties," the dollar should be standardized so that it shall always have the same purchasing power, just as the yard and the pound have been standardized and remain fixed as measures of distance and weight. Instead of a gold dollar constant in weight but varying in purchasing power as at present, Professor Fisher would have a dollar of constant purchasing power and of varying weight. "It would compensate for any loss of purchasing power of each grain of gold by increasing the number of grains which go to make a dollar." In effect the Fisher plan proposes to restore the ancient custom of a seigniorage on gold coinage, that seigniorage to be readjusted annually according to changes in the price level as indicated by official index numbers. At present there is no seigniorage on gold coinage in this country. The miner takes 25.8 grains of gold to the mint and receives a 25.8 grain gold dollar; the coined dollar weighs the same as the uncoined or "bullion dollar," as Fisher terms it. His proposal is to increase the weight of the bullion dollar as prices rise so that 26, 27, or 28 grains of gold bullion will have to be taken to the mint to get a 25.8 grains gold dollar. The difference in weight between the two would be seigniorage, the amount of which would be changed from time to time as the index number showed a change in the level of prices. As the coined dollar would always be interconvertible with the bullion dollar the two would always be equal in value, and the dollar would always have a fixed purchasing power.

Neither the gold standard nor actual gold coinage would be disturbed by this plan. The increase in weight of the gold dollar would not be added to the coins themselves but only to the bullion out of which they are made. Existing gold coin and new gold coins would remain unchanged at 25.8 grains per dollar. "Gold coins," says Fisher, "would simply become what the silver dollar now is, token coins. Or, better, they would be like the gold certificates,

mere warehouse receipts, or, as it were, brass checks for gold bullion on deposit in the Treasury. Otherwise expressed, gold coin would be merely gold certificates printed on gold instead of on paper. They would be used exactly as gold certificates are used, namely, issuable to the gold miner in return for his bullion, and redeemable for those who wished bullion for export or in the arts." The seigniorage, that is, the excess of bullion over the weight of the coined dollar itself, would be held by the Government as a trust fund for redeeming gold bullion and gold certificates in the future.

A serious objection to this plan to standardize the dollar would seem to arise if prices were falling instead of rising. The weight of the virtual gold dollar, that is, the amount of gold bullion which at any time is interconvertible with the dollar of circulation, could never be reduced below the weight of the coin dollar, for then there would be no seigniorage and all the gold coin would at once be melted into bullion, in which form it would be worth more than as coin. This would mean then that the government price of gold should never be more than $18.60 an ounce. Though Professor Fisher does not anticipate a downward movement of prices in the future, he proposes to meet this possible emergency in either of two ways.[1] If the price level should sink more than, say, ten per cent below the original par or price level at the time the system was established, all gold coins could be withdrawn from circulation and gold certificates employed instead. Or it could be arranged to recall all gold coins and recoin them in lighter weight, just as a few years ago the Philippine peso was recalled and reduced in weight when the rise in the price of silver threatened to lead to the melting of the silver pesos. This would not reduce the value of the gold coin any more than the reduction of seven per cent in the weight of our subsidiary silver coins in 1853 had any

[1] For a criticism of these plans see Patterson, "Objections to a Compensated Dollar," *American Economic Review*, Dec., 1913, pp. 863-874.

tendency to reduce the value of those coins. Fisher favors the plan of eliminating the gold coins altogether.[1] To prevent speculation in gold disastrous to the Government he proposes to have the Government make a small brassage charge of, say, one per cent for minting. This would mean that the price at any particular date at which the Government bought gold would be a little less than the price at which it sold it. Without such a margin of protection to the Government, speculators would, in anticipation of a rise in the price of gold, buy it at, say, $18 an ounce and sell it back to the Government immediately after the change in price to, say, $18.10. On the other hand, if gold should fall in price from $18.10 to $18 an ounce, holders of gold bullion would rush it to the mint to sell it at the former price and immediately after the change buy it back at $18, thus profiting again at the expense of the Government.

As Professor Fisher points out, we have standardized every other unit in commerce except the most important and universal unit of all, the unit of purchasing power. Even the new units of electricity, the ohm, kilowatt, ampere and volt, have been standardized, but "the dollar is still left to the chances of gold mining." The dollar as a unit of purchasing power, and so a standard for deferred payments, has not been standardized hitherto, because we have had "no instrument for measuring it or device for putting the result into practice. With the development of index numbers, however, and the device of adjusting the seigniorage according to the index numbers, we now have at hand all the materials for scientifically standardizing the dollar and for realizing the long-coveted ideal of a 'multiple-standard' of value. In this way, it is within the power of society, when it chooses, to create a standard yard-stick, an 'unshrinkable dollar.'"[2]

In a textbook of this kind it would not be profitable to enter into a detailed discussion of the objections to Professor Fisher's plan for a compensated dollar. It must

[1] *The Independent* (N. Y.), Jan. 2, 1913.
[2] *The Independent* (N. Y.), Jan. 2, 1913.

suffice to state briefly some of the most striking objections. In the first place, this scheme being based upon the use of the multiple or tabular standard is open to all the objections against such a method of correcting price fluctuations. Moreover, it is based upon the quantity theory of money in some form, but authorities are not agreed upon the soundness of that theory. Secondly, there does not seem to be much hope of an early international adoption of the plan, and its adoption by the United States alone would play havoc with our foreign trade and make the operations of foreign exchange uncertain and highly speculative. Thirdly, the plan is defective in that it cannot be applied to check falling prices. Professor Fisher proposes to meet this possibility either by reducing the weight of the coined dollar or by withdrawing all gold coin and substituting gold certificates. It is probable, however, that the business world would look upon either expedient as a plan to debase the standard and that it would meet with stubborn opposition.

Even granting that it is advisable to maintain a price average, the adoption of Professor Fisher's ingenious scheme as a practical plan seems remote. The illusion that gold is stable, produced by the fact that the price of gold is always the same, is deep-rooted in the business world. A long campaign of education will be needed before men will be willing to surrender that belief.

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CHAPTER VII

CREDIT

53. Nature of credit.—The term "credit" is used with a great variety of meanings.[1] A man is said to have good credit if he has the reputation among his business associates of paying his debts promptly when due. To give credit is to accept another's promise to pay in exchange for a valuable consideration. To say that a firm gets a "line of credit" at a bank or with another business house means that it has the right to borrow or to get goods up to a certain amount by agreeing to pay sometime in the future. Credit may be broadly defined as "the power to get goods in exchange by giving a promise or contract to deliver an equivalent at some future time."[2] In short, credit is a promise to pay money.

There has been much discussion as to whether confidence or futurity is the essential thing in credit; and as to whether credit is based on money or on goods. It seems clear that "futurity is the distinctive factor in credit, while confidence lies at the basis of the granting of credit."[3] The time element enters into all credit transactions, yet the essence of credit is confidence on the part of the creditor in the debtor's willingness and ability to pay his debt. In certain kinds of credit transactions, as, for example, the

[1] See Prendergast: Credit and Its Uses, pp. 8-11.

[2] Johnson: Money and Currency, p. 4. For other definitions see Laughlin: Principles of Money, p. 72.

[3] Hagerty: Mercantile Credit, p. 8.

purchase and sale of goods on credit, confidence may rest upon the character and business ability of the borrower. In other types of credit transactions, as call loans or mortgage loans, confidence rests more upon the securities or property pledged than upon the borrower's personal integrity—yet the element of confidence is present in some form in all such transactions. As to whether credit is based on money or goods, it need only be said that the promise to pay in the future involved in a credit transaction is usually expressed in terms of money, and is "completed by the payment of money, credit money, or a title to money." [1]

The most important service of credit is to facilitate the transfer of capital and thus to promote the production of wealth. But it must be understood that credit is not itself either capital or wealth. Wealth consists of economic goods and capital consists of economic goods used in the production of wealth. Now credit is not "a thing or commodity, nor does it create anything. No more wealth, no more capital, no more goods, exist after credit is given than before." [2] If capital is in the hands of the borrower, it is withdrawn from the lender. Credit, then, is merely the agency of transfer. But to the extent that credit transfers capital from the hands of the passive owners to the borrower or enterpriser who will employ it in larger production, it increases the usefulness of capital.

54. Classes of credit.—Credit may be classified in a variety of ways. A common and serviceable classification divides credit into five kinds: personal, commercial, banking, public and investment credit.[3] In a broad sense all credit is financial since it involves the payment of money or money's worth, but the foregoing classification will be helpful in illustrating the different kinds of credit instruments to which each class of credit gives rise. Though in this book we are concerned primarily with banking and

[1] *Ibid.*, p. 15.

[2] Johnson, p. 36.

[3] Hagerty, p. 37; Prendergast, Pt. II.

commercial credit it will be well to discuss the other kinds briefly to show their relation to these two.

Public credit is the power of a government, nation, state, county, or city, to secure funds in exchange for its promise to pay in the future. This promise takes the form ordinarily of bonds which are sold to bankers, investment houses and individuals. Government or municipal bonds, which are simply promises to pay money, are usually not protected by the pledge or deposit of any specified property; the purchaser rests upon faith in the government to pay its debts. Sometimes, however, the credit of a government becomes so weakened because of heavy expenditures for war or other purposes that it finds it necessary to pledge certain property or income as a guarantee that it will meet its obligations. Thus, for example, the Japanese government was compelled to borrow vast sums of money during the war with Russia in 1905, and one of its loans was secured by a charge on the revenues of the tobacco monopoly. The rate of interest on government bonds is a general index of the government's credit. Government and municipal bonds are frequently used by the owners as collateral to strengthen their individual credit when they wish to borrow funds at the bank.

National governments use their credit also by the issue of government notes or paper money, as in the case of our greenbacks. Many governments have abused their credit by issuing great quantities of irredeemable paper currency and, generally, humiliating results have followed.

Investment or capital credit is represented by bonds and stocks of incorporated businesses and by real-estate mortgages and bonds. Real-estate mortgages have always been a favorite form of investment. Vast amounts of money are thus invested by savings banks, trust companies, insurance companies, building and loan associations, and other organizations which act in the capacity of trustee or custodian of funds. Agricultural credit instruments take the form of notes accompanied by mortgages on the land, farm implements, or the crops. Most European countries have

long had mortgage banks and systems of agricultural credit which have provided the farming classes with fair credit facilities. Until recently scant attention has been given to agricultural credit in the United States, but plans are being made to provide the farmer with credit facilities comparable with those enjoyed by the manufacturer and the merchant.

In the modern business world the corporation has proved to be the most advantageous form of business organization for large undertakings. Railroad and public utility companies, manufacturing concerns, mercantile enterprises, banking and insurance companies—these and many other types of business organizations operate under the corporate form. These corporations get a large proportion of their capital through the sale of stocks and bonds to individual investors. Bondholders have a preferred claim to the earnings and assets of the company, and, usually, their investments are protected by a mortgage upon the property of the corporation. A stockholder is virtually a partner in the corporation sharing its gains and its losses, and having a voice in its management. A corporation is able to get capital credit from a great variety of investors through the sale of its shares of stock the par value of which is usually $100. In most types of corporations stockholders are responsible for the debts of the company only to the amount of their holdings. Then, again, they are free to leave the corporation at any time simply by selling their stock to someone else. Because of these and other advantages, the corporation attracts capital funds from many sources.

Corporation bonds are issued usually for long periods, varying from five to fifty years or longer. Sometimes, however, when money rates are high, corporations which are in urgent need of funds issue "short-term notes" running from one to three or five years, rather than contract to pay the high rates for a long period of years which would be the case if they issued bonds. When a corporation issues these short-term notes instead of bonds it is with the

expectation, usually, that before the notes mature it will be possible to sell bonds at a lower rate of interest or at a better price than when the notes were issued. As already noted, corporation bonds are generally issued against a mortgage which gives the bondholders title to some property. Short-term notes, however, have no such protection, but are issued on the general credit of the corporation.

55. Personal credit.—Personal or individual credit is the power of an individual to secure something valuable in the present in exchange for a promise to pay in the future. Because personal credit is sought chiefly for purposes of consumption, it is sometimes called consumption credit; but it is used also to secure credit for purposes of production, to procure professional services of various kinds, and to borrow money. Of all kinds of credit, personal credit is the most common and widespread. All classes of people give or receive personal credit at some time and to some degree. Wage-earners extend credit to their employers by working for a day, a week or a month before receiving their pay; lawyers, physicians and other professional classes give credit to their clients or patients until the latter are ready to pay their bills; grocery stores and shops open "charge" accounts with their customers; manufacturers sell goods to wholesalers on "time," and these in turn sell to retailers on time, and so on. Personal credit ramifies through every department of our modern life. As we shall see, it is often very closely related to mercantile and banking credit. The chief elements in credit are character, capacity or business ability, and capital or collateral. Of these elements, character is the most important in personal credit. Multitudes of people without capital or known business ability are constantly getting credit because of the confidence which the extenders of credit have in their honesty and integrity.

The simplest of all forms of credit is book credit—having things "charged." In rural communities where the farmer's return for his crops is received only at long intervals, book credit, his credit at the country store, tides him over

between harvests. In factory towns where wages are paid monthly or weekly, credit at the neighborhood shops supplies the family needs. In the large department stores, the monthly "account" obviates the necessity of making frequent payments, and facilitates shopping. It is estimated that book credit figures in fully one-half of the wholesale and retail transactions of this country to-day. Generally, book credit simply postpones payment until settlement day, when some other form of credit, usually bank credit in the form of a check, settles the account.

56. Commercial or mercantile credit.—Commercial credit is the principal medium by means of which trade exchanges are carried on in the distribution of goods. The entire industrial organization of to-day is based upon credit giving. The process of distributing goods from the grower or original producer to the ultimate consumer involves the services of many middlemen—manufacturers, brokers, wholesalers, jobbers, importers and retailers. Each of these in turn frequently has to buy goods on credit, for few business concerns are so situated that they can always pay cash. The farmer or planter goes in debt for his seed, fertilizer and machinery, agreeing to make payment when his crop is sold; the manufacturer purchases his raw materials on time and sells his manufactured product to the wholesaler, jobber or commission agent under the same terms; and so on through the whole chain of distribution.

Great changes have been brought about in the mercantile credit system in recent years due largely to improved means of transportation and communication. In earlier days it was necessary for the merchant to make several trips a year to the large jobbing centers to purchase his supplies. Buyer and seller met face to face and agreed upon terms of payment. There was considerable risk owing to bad roads and uncertainty of shipments. The local merchant, therefore, "stocked up" heavily once or twice a year and usually had to ask for a liberal amount of time in which to make his payments. Quite commonly he gave his promissory notes running for six months or a year. Improved

railway and mail service, the telegraph, telephone and cable have greatly changed these earlier methods of merchandising. Now the buyer and seller rarely see each other. Traveling salesmen make periodic visits to the local merchant, selling by sample; or the merchant buys from catalogs or price lists sent through the mails. He may now send in smaller orders, knowing that he can get quick delivery if a good season warrants additional orders. Thus, the wholesaler takes the risk of overstocking rather than the retailer.

Changes have come, too, in methods and terms of payment and of securing credit information. Formerly the seller of merchandise determined upon the amount of credit he could safely extend to the buyer when the latter came to make his purchases for the year or the season. Now orders are received from hundreds of merchants scattered over a very wide territory of whose financial responsibility the seller personally knows little or nothing. Various agencies and institutions, such as the mercantile agencies and credit exchange bureaus, have been developed to supply the seller with information regarding the credit standing of buyers, and the large manufacturing and jobbing houses have established credit departments whose business it is to investigate the business standing of those seeking credit.

Under the old system of liberal and long terms of credit it was usual for the seller to require the buyer to give a promissory note which he could discount at his bank and so procure funds to operate his own business. With improved means of communication and better banking facilities these long-term note settlements have given place largely to short-time payments. The merchant who gave his note for six or twelve months under the old system had to pay the highest prices and the highest rate of interest. But with more liberal banking accommodations he was quick to see the advantage of borrowing money from the bank and "discounting" his bills for cash or an early settlement. This change from long-time paper has intro-

duced into the credit system two new features, "dating" and "book accounts."

57. Dating.—The custom of dating, that is, dating bills a certain length of time ahead of the actual shipment of goods, is in effect a method of granting extra credit by the manufacturer or jobber in order to induce retailers to make their purchases before the season opens. For instance, a manufacturer sells a bill of goods on March 1, with a dating of sixty days—terms 2 per cent, ten days, net, thirty days. This bill will not be due until June 1, as the dating carries it forward to May 1, after which the buyer has thirty days in which to pay it. The seller cannot demand payment on this bill before June 1, but of course the purchaser may settle it earlier if he chooses. If he pays cash before the end of the ten days (March 10) he can deduct two per cent discount and also interest at the rate of six per cent for the unexpired term of sixty days (the dating).[1] Of this practice of dating, Prendergast says: "From a concession on the part of the wholesaler and jobber, the idea of dating seems to have become a right demanded by the merchant, and a settled principle in commercial practice or credit. It has led to an undue anticipation of wants on the part of those engaged in all divisions of trade from the manufacturer to the retailer; and in lines where the element of fashion is a leading one, and subject to sudden changes, it has been the cause of considerable loss to many."[2] Dating transfers the risk from the manufacturer and the wholesaler to the retailer. It tends, moreover, to encourage dealers to overstock and to take larger risks in anticipating trade conditions. As a consequence heavy and frequent losses are likely to result. There seems to have been a disposition in recent years, especially on the side of wholesalers, to discourage the practice of dating. The tendency is toward shorter terms of credit.

58. Book accounts.—Another form of commercial credit which has been developed as a substitute for the promis-

[1] Prendergast, Credit and Its Uses, p. 114.

[2] *Ibid.*

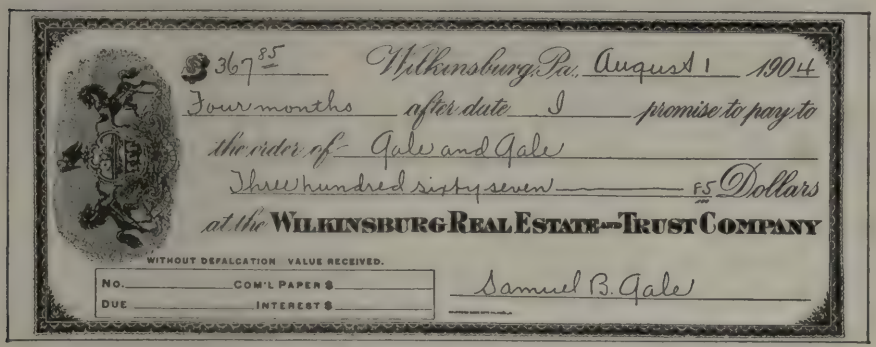
sory note and the commercial draft is the book account. With the disappearance of the long-time credit instrument the chief evidence of the indebtedness of the buyer to the seller of the goods was the record on the seller's books. Having the same need of raising money, but not having his customers' notes to discount at the bank, the jobber or wholesaler resorted to the practice of borrowing directly on these book accounts.[1] At first the handling of this particular kind of credit was confined to the banks and some banking concerns have separate departments for dealing in book accounts. In recent years there have grown up brokerage or commission houses which specialize in negotiating loans on book accounts. Some of these houses, which are closely connected with banks and trust companies, have a very large and lucrative business.

There are several ways of realizing on book accounts.[2] The book account may be sold outright to a bank or commission house which assumes all risks and charges a high rate of interest and, perhaps, a bonus in addition. Another plan is for the seller of merchandise to assign his book accounts and borrow upon them up to a certain percentage of their value. The assignee permits the assignor to collect the accounts when due, but requires the substitution of other accounts to maintain the agreed-upon ratio. Under this method the borrower's customers do not know that he has assigned their accounts. Sometimes the commission house or banker advances funds to a certain percentage of the value of the accounts assigned by the borrower and collects the accounts. In this case the borrower's credit may suffer somewhat because his customers learn that he has assigned their accounts to procure funds. Though the increasing number of firms whose business it is to make loans on book accounts is evidence of the large use of this method of procuring funds, a borrower who resorts to it, involving as it does heavy interest charges, is not generally considered as having high credit standing.

[1] See Prendergast, p. 115.

[2] See Hagerty, pp. 68-69.

59. Instruments of commercial credit.—The two principal instruments of commercial credit, apart from book accounts, are the promissory note and the bill of exchange. A promissory note is a written promise to pay a certain sum of money to the payee on demand or at the end of a definite time. The payee, by indorsing it,


$ 367 85/100
Wilkinsburg, Pa. August 1 1904
Four months after date I promise to pay to
the order of Gale and Gale
Three hundred sixty seven 85/100 Dollars
at the WILKINSBURG REAL ESTATE TRUST COMPANY
WITHOUT DEFALCATION VALUE RECEIVED.
No.
COM'L PAPER $
DUE
INTEREST $
Samuel B. Gale

Form of Promissory Note

may make it payable to a third person, and he in turn may transfer it to a fourth person, and so on. Each indorser makes himself responsible in case the maker of the note fails to pay it when due. In most lines of business the interval between buying and selling stocks of goods necessitates borrowing from the banks. Though the practice of giving promissory notes to cover purchases of goods has declined in this country, it is still common in certain lines of business. Such paper when indorsed by the payee can readily be exchanged for bank credit by being discounted at the bank. It is believed that under the Federal Reserve Act, which provides for the rediscount of commercial paper held by the banks, the promissory note as a medium of payment will regain some of its former popularity.

Sometimes firms have such high credit that they can borrow by offering their own notes for discount. Such notes are known as "single-name paper." If the firm secures the indorsement of some other person or firm, the

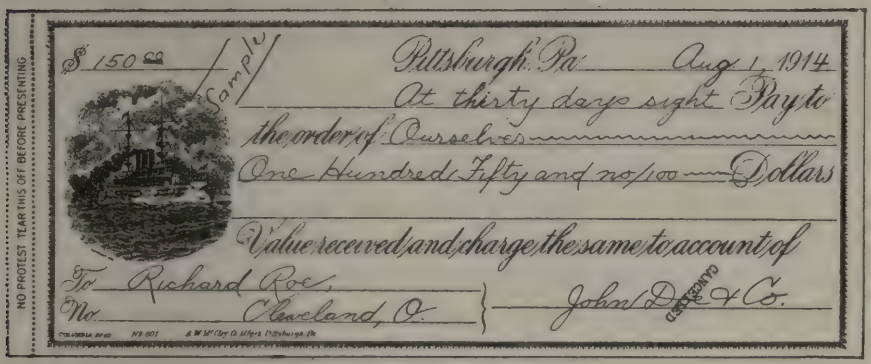
paper is called "double-name" or "indorsed" paper. When such indorsement is made simply as a favor or an accommodation, and not in consequence of an actual business transaction, the note is called "accommodation paper." Though the accommodation indorser is responsible to a third innocent party in case the original maker fails to pay the note, this class of paper is not highly regarded in banking circles. When a borrower pledges stocks, bonds, or other evidences of property, to add to the personal security of his note, the paper is known as a "collateral note." If a collateral note is not paid when it falls due the bank may sell the securities and reimburse itself from the proceeds. Call loans, that is, loans payable at any time on the demand of either lender or borrower, are usually based on collateral security consisting of stocks and bonds. Such loans are confined largely to stock exchange brokers who are dealing constantly in securities.

A bill of exchange is a written order by one person to another requesting payment of a definite sum of money. Bills of exchange are of two general classes: foreign and domestic. Legally, a "foreign" bill of exchange is one drawn upon someone living in another state from that of the drawer. In everyday business, however, a foreign bill means one drawn upon someone in a foreign country.[1] Domestic bills of exchange, or "drafts," as they are generally called, are either "sight" or "time" drafts. A sight draft is payable on demand; a time draft is payable a certain time after sight or date. The party drawing the bill is called the "drawer" and the person on whom it is drawn, the "drawee."

The following simple illustration will show the use of the commercial draft. Meyer and Co. of Pittsburgh order a bill of goods from J. B. Arnold of New York, and state in their order that upon receipt of the goods in good condition they will "honor" a draft at thirty days' sight for the amount. Arnold draws a sight draft, payable to him-

[1] For a full explanation of foreign bills of exchange, see Chapter XVII.

self, and after indorsing it he deposits it in his bank. The bank forwards it at once to its correspondent bank in Pittsburgh. As soon as possible after its receipt by the latter, the draft is sent by a runner to the office of Meyer and Co. They honor or "accept" the draft by writing across its face the word "accepted," with the date, the


$150 00
Sample
Pittsburgh, Pa. Aug 1, 1914
At thirty days sight Pay to
the order of Ourselves
One Hundred Fifty and no/100 Dollars
Value received and charge the same to account of
To Richard Roe,
No. Cleveland, O.
John Doe & Co.
ACCEPTED
NO PROTEST TEAR THIS OFF BEFORE PRESENTING

COMMERCIAL DRAFT

name of the bank where they wish to make payment, and their signature. The draft is now known as an "acceptance," and is in effect a promissory note. Upon notice from the Pittsburgh bank that the draft has been accepted, Arnold's bank in New York discounts the acceptance and credits his account with the proceeds. If the bank has confidence in Arnold's responsibility it may discount his draft as soon as he deposits it. Meyer and Co. pay the draft at their bank or office when it matures and settlement is made between the Pittsburgh and New York banks, thus completing the transaction. Instead of making the draft payable to himself, Arnold may draw in favor of a third party to whom he owes money. This is known as a "three-party" draft, but the procedure in presentation and payment is essentially the same as in the case of the "two-party" draft. A sight draft is payable on presentation. Sometimes the drawee, instead of paying the draft when presented at his office, accepts it, making it payable at his bank. It then becomes practically a check, and the

runner goes to the bank designated by the acceptor to collect it. The principles involved in the use of foreign bills of exchange are substantially the same as in domestic bills.

Bills of exchange are frequently accompanied by bills of lading, or other evidences of property. For example, in the foregoing transaction between Arnold and Meyer and Co., Arnold upon shipping the goods at New York receives from the railway company a bill of lading which is an acknowledgment of the receipt of the goods and a contract for their delivery in Pittsburgh. The bill of lading is attached to the draft, together with the invoice of the goods, and the papers are forwarded through the banks as already described. In order to get possession of the bill of lading entitling them to the goods, Meyer and Co. of Pittsburgh must accept the draft or pay it if it is a sight draft. Generally, banks are more ready to advance loans on drafts accompanied by bills of lading than on paper resting on personal security alone. Despite its evident safety and convenience as an instrument of credit, the bill of exchange is not as widely employed in this country as in England, where it has attained the highest degree of acceptability.

As an instrument of credit and of exchange the warehouse receipt performs much the same function as the bill of lading. A warehouse receipt is a receipt for grain, cotton, or other merchandise stored in a warehouse. It is a negotiable instrument and passes from hand to hand by indorsement like a promissory note or a check. As grain, cotton, and other staple warehouse products are now carefully classified and standardized, warehouse receipts are largely used as collateral for procuring loans at the banks.

60. Banking credit.—Banking credit is the power of a bank to secure advances of funds in exchange for its promises to pay. As noted in the foregoing discussion, banking credit is intimately connected with all other forms of credit, particularly with commercial credit. Under modern conditions bank credit is the life blood of the whole commer-

cial organism. The modern commercial bank has aptly been defined as "a manufactory of credit." On the other hand, it is commercial credit that creates the vast amount of credit instruments the handling of which constitutes the bulk of the commercial banking business. Commercial banks are commonly known as banks of "discount and deposit," a designation which suggests their most important functions. Formerly a third function, that of issuing circulating notes, was of primary importance, but in recent years this function has been of lesser consequence. That a bank creates credit and that banking and commercial credit are closely interwoven can readily be seen in the everyday discount and deposit operations of the bank. Banks have learned by long experience that in ordinary times the depositors will not all call for their money at the same time and that only a small proportion of the total deposits need be kept on hand to meet daily demands. The banks are able, therefore, to use a considerable part of these deposits for granting credit to business men who have evidences of property in the form of commercial paper, book accounts, or warehouse receipts which they are willing to pledge or sell to the bank in exchange for the right to use the bank's credit. Ordinarily when a business man secures a loan at his bank he does not want cash, but rather a credit against which he can draw checks to meet his obligations. Thus, because banks enjoy the confidence of the business community to such an extent as to retain possession not only of deposits but also of the funds loaned, they are able to create several times the amount of credit transactions that could have been created in the hands of individual depositors.[1]

Banking credit is generally accorded the highest rank in the field of credit. To be successful a bank must have the fullest confidence of the public, and must always be ready to meet its note and deposit liabilities on demand. In personal or mercantile credit, debtors who are unable to meet their payments when due may get an extension of

[1] Hagerty, p. 42.

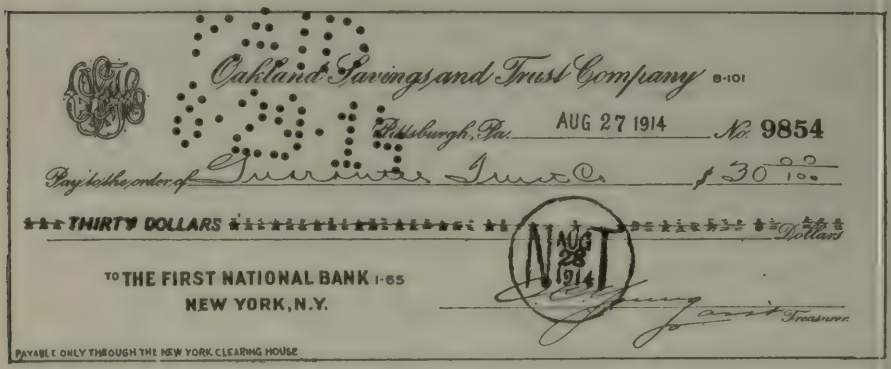
time without seriously impairing their credit standing, but a bank must meet its credit obligations promptly as they mature, or close its doors. The most imperative obligations of a bank are the calls for money by its depositors. To meet these demands banks must keep a cash reserve, the minimum amount or proportion of which is fixed by law in this country, though in most other countries it is left to the discretion of the banks. Since, however, the bank's chief business is loaning or exchanging its credit for short periods, and since its credit obligations are usually several times the amount of money available in the bank to redeem them, it is important that its loans shall be of such a nature that a fair share of them can be quickly converted into cash. To have at all times that quick control over its assets that is indispensable to its solvency, a commercial bank must largely confine the investment of its funds to short-time loans based on mercantile transactions. Until the enactment of the Federal Reserve Act in 1913, national banks were not permitted to make loans on real estate, and even under the terms of that act such loans are carefully restricted. Real estate has not been regarded as a liquid asset, that is, one that can quickly be turned into money. The function of the commercial bank is not to supply industry with permanent capital, but rather to loan its credit temporarily to business men, the nature of whose business is such that they can confidently count on repaying what they have borrowed within a comparatively short time. This takes the form mainly of the purchase of "business paper" consisting of promissory notes and bills of exchange running from thirty days to four months, which from the viewpoint of the bank become "loans and discounts."

Another important service of banking credit is to supply a medium of exchange by the issue of circulating notes or by means of deposit accounts which circulate in the form of checks and drafts. Both are used in making advances to customers or in exchange for commercial credit in the form of promissory notes or bills of exchange. Both bank

notes and deposits are demand obligations of the bank and as a medium of exchange they discharge substantially the same functions in the business world. Bank notes are used as hand-to-hand money because they are payable to bearer, are issued in fixed denominations, and pass freely everywhere, even among strangers. In country districts where banking facilities are not so general or convenient, the bank note rather than the check must be used as a means of payment. Checks, representing deposits, are more serviceable to the business man since they can be drawn for any amount and can be transferred from one person to another by indorsement; they are more convenient and safe than coin or notes for sending through the mail; if a check is lost a duplicate can be issued and payment of the original stopped at the bank; and, of not least importance, a cancelled check constitutes a voucher or receipt showing that the obligation for which it was drawn has been paid. Because of these and other advantages, deposit currency in the form of checks finds steadily increasing use as an instrument of credit.

61. Instruments of banking credit.—The chief instruments of banking credit, other than bank notes, are checks, bank drafts, and letters of credit. A check is a written order on a bank for money drawn by one who has a deposit there. Checks are usually made payable to someone's "order," and must then be indorsed by the payee before they can be negotiated further or cashed. A check drawn to "bearer" is payable to any person who holds it. Technically, a check is only an order on the bank, but legally it is an implied promise to pay on the part of the drawer of the check, and any person "giving a check upon a bank in which he has no deposit account is liable to prosecution for obtaining money under false pretences." A depositor, wishing to make a payment at a distance where he is not known, or being required to present unquestionable evidence of his financial ability to fulfill his agreement in some contract, or bid for bonds, or the like, may request his bank to certify his check. The cashier writes or stamps

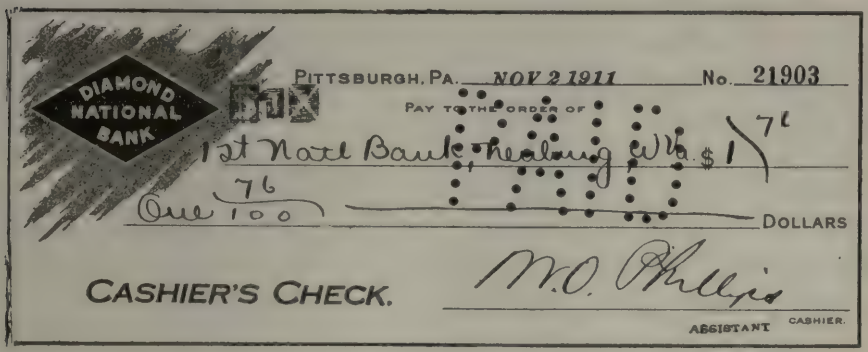
across the face of the check the word "certified" or "good when properly indorsed," followed by his signature. The check then becomes the bank's promise to pay or guarantee and the depositor's account is at once debited as if the check had been paid. Where a bank does not make a practice of certifying checks, it may instead issue a bank draft or a cashier's check payable to the order of the depositor, or to the person whom he designates.



BANK DRAFT

A bank draft is an order drawn by one bank on another bank. Practically all banks keep funds on deposit with banks in other cities, especially in the large financial centers, in order that they may be able to meet the demands of their customers for a form of payment which will be accepted without question. The banks draw upon these accounts and sell their drafts to their customers, making a small profit on the charge for "exchange." Bank drafts pass as cash practically anywhere in the country and constitute an important method of making remittances from one part of the country to another. Drafts on New York, commonly known as "New York Exchange," are acceptable all over the country, owing to the fact that New York is the commercial and financial center of the country and that business men everywhere have dealings with that city. The following transaction will illustrate the use of the New York draft. Smith Brothers of Indianapolis want to

remit $2,500 to a concern in Providence, R. I., for goods to be shipped at once. They send down to their bank a check for the amount, writing in the place of the payee's name the words "New York Draft." The bank makes out a draft on its New York correspondent for $2,500, payable to Smith Brothers. They indorse the draft, making it payable to the Providence creditor, and mail it to him. In having the draft drawn to their own order, instead of to the order of the creditor, it serves as a direct evidence of the transaction, and acts as a voucher when indorsed and transferred.


DIAMOND NATIONAL BANK
PITTSBURGH, PA. NOV 2 1911 No. 21903
PAY TO THE ORDER OF
1st Nat'l Bank Reading Pa. $ 1 71
DOLLARS
CASHIER'S CHECK.
ASSISTANT CASHIER.

CASHIER'S CHECK

A cashier's check is an order on a bank drawn by its own cashier. It differs from a bank draft in being drawn by the cashier upon his own bank instead of on some other bank. It is used when the bank has payments to make, just as an individual uses his check. It is also issued to customers to be remitted to their creditors like a bank draft; and it is sometimes used in lieu of certification where it is not the custom of the bank to certify.

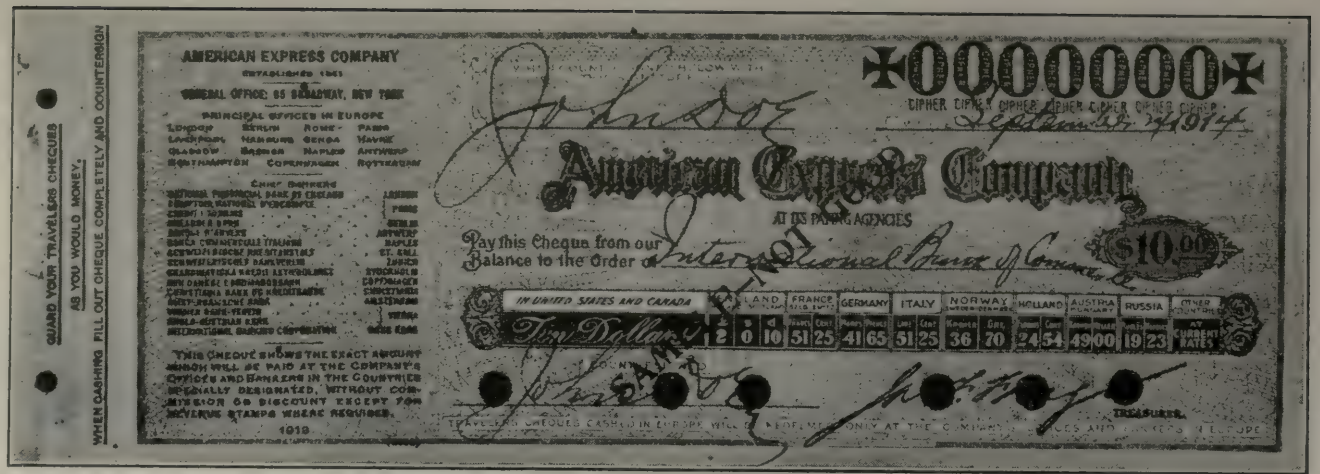
A letter of credit is a document issued by a bank or banker directed to its correspondents authorizing the bearer to draw upon the issuing bank or some central agent up to a certain amount. A traveler, before starting abroad, buys a letter of credit from his bank. In any

foreign city, as he may have need for the money current in that country, he goes to the office of the correspondent named in his letter of credit, and makes out a draft for the amount he needs. The draft will be cashed, after comparison of the signature on the draft with that on the face of the letter, and the amount withdrawn, plus commission, will be entered on the letter. Thus the letter will show at any time how much of the credit remains unused. Commercial letters of credit provide a convenient means of paying for goods bought in any part of the world or of receiving payment for goods exported.[1]

To meet the demands of travelers for a convenient, safe and economical method of carrying funds, the express companies and some international bankers issue "travelers' cheques." They are issued for fixed amounts, ranging from $10 up to $100, and show the equivalents in the money of the principal European countries. To provide a simple means of identification and security against loss of the cheques, the intended user places his signature upon each cheque. When he wants to obtain funds at the bank or express office, or to pay his hotel bill, he again signs his name in the proper place on the cheque, thus completing the issuance and insuring the identification of the rightful owner, as the two signatures must agree. The advantage of these cheques is that the value of each cheque in the money of the leading European countries is plainly printed on them, and they are cashed without discount or commission by bankers, agents of express companies, and the leading hotels in Europe, the United States, and Canada. They are convertible into money at almost any time and place.

62. Effect of credit on prices.—In discussing the value of money and price changes in a previous chapter, frequent reference was made to the fact that under modern conditions a considerable proportion of commercial transactions are performed by means of credit and credit instruments. Having now considered the nature, functions and opera-

[1] See pp. 239-243.



TRAVELER'S CHEQUE

tions of credit and credit instruments we may examine the question of the effect of credit upon prices.

Some writers maintain that credit has no influence whatever on prices; that the general level of prices is determined by the supply of and the demand for standard money; that credit transactions are based on the price level thus determined; and that the credit instruments arising from such transactions are finally cancelled without having exercised any influence on prices. Others assert that credit, which virtually means purchasing power, influences prices exactly as money does.

Credit undoubtedly increases the supply of purchasing power and so may seem to have the same effect on prices as an increase in the quantity of money. The price of an article put up for sale is effected quite as much by the offer of a man of undoubted credit who asks to have it charged to him or who gives his promissory note in payment as by a cash offer. But it must be remembered that credit merely postpones the payment of money. Sometime the credit obligation must be liquidated in money, and money used for this purpose will not be available for other transactions. If all credit transactions cancelled each other automatically and completely, making it unnecessary to use any actual money, credit would be a perfect substitute for money and as such would act upon prices just as money does. In practice, however, no such complete and exact cancellation takes place. Against the uncancelled balance a reserve of money must be kept, the amount of which will vary with business conditions and customs and various other factors. This demand for money to settle uncancelled balances measures the real influence of credit on prices. Since most credit transactions are based upon bank loans, banks must keep a reserve of money sufficient to liquidate credit balances and thus to maintain confidence in the ultimate payment of credit obligations. How much money is needed as a basis of credit only experience can tell. It varies in different countries and in the same country at different times. It must always be sufficient to maintain

confidence, which is the cornerstone of credit. The amount of money thus set aside as a reserve reduces the total available for actual cash transactions and so tends to lower the price level.[1] Credit, therefore, exerts the same kind of influence upon price as money, but to a lesser degree, owing to the fact that "a portion of its ideal efficacy as a substitute for money is lost through the necessity of keeping on hand a reserve for which no substitute can be employed."[2]

In so far as credit and credit instruments dispense with the use of actual money, they affect prices in the same way that money does. Credit lessens the demand for money as a medium of exchange and as a store of value. If, for example, banks should refuse to honor checks under $100 it is clear that everyone would be obliged to carry much more cash than at present, and the demand for money would vastly increase. If the supply of government currency or bank notes were not correspondingly increased the value of money would rise and prices would fall. The use of credit money and credit in the form of checks and drafts reduces the amount of currency needed for pocket and till money, and legal tender money serves as well as money itself for bank reserves. Credit money, like every other form of credit, by economizing the use of money, lessens the demand for it and so lessens its value. When people have perfect confidence in the ability of the government to redeem its notes and they are made legal tender and available for bank reserves, an increase in government credit money tends to raise prices in the same way as an increase in gold itself. Bank notes, too, serve as substitutes for money and by lessening the demand for money tend to raise prices. Credit does not increase the supply of money, but it does increase its efficiency, enabling a country to get on with a smaller supply of money than would otherwise be necessary. An expansion of credit,

[1] Kinley: The Use of Credit Instruments (Nat. Mon. Comm.), pp. 213-214.

[2] Seligman: Principles of Economics, p. 552.

therefore, exerts the same upward tendency on prices as an increase of the money supply.[1]

In view of the fact that credit is so elastic and that its influence in raising prices is naturally cumulative, its use must be carefully guarded if over-expansion and speculation are to be avoided. As prices rise in response to the increased credit demand for goods, the owner of the goods finds that he can get larger credit at his bank, for the goods are worth more. With confidence and buoyancy in business, this process may be repeated until prices reach a dangerously high level. The total amount of credit based upon goods at these inflated prices may become so great that the uncancelled balance may be too large for the money reserve to sustain. If before this stage is reached credit is not contracted or reserves increased, a money stringency, possibly a crisis, will result, causing great loss to the business community by a rapid fall in the price level.[2] The influence of credit upon prices, therefore, operates through its effect on the demand for money, and especially on the proportion between money in circulation and that required as a reserve for credit transactions.

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Scott: Money and Banking, Ch. VI.
Taussig: Principles of Economics, Bk. I, Ch. 31.

[1] Johnson: Money and Currency, p. 63.

[2] Kinley: Money, p. 223.

PART II. BANKING

CHAPTER VIII

ORIGIN AND DEVELOPMENT OF BANKING

63. Early banks.—The authorities are not agreed as to the origin of the term "bank." Some trace it to the "banc" or bench where the early money changers kept their coins and plied their trade. Others claim that it is derived from "banck," the German name for a joint stock fund, which was converted by the Italians into "banco," meaning a heap or accumulation of money or stock.[1] In colonial days in Massachusetts the issue of paper money was referred to as "raising a Banke," the word bank meaning the money rather than the institution which put it in circulation.

The modern banker, as has previously been shown, is primarily a dealer in credit. Originally he dealt in money, his business being to exchange one form of coin for another, both domestic and foreign. Early, however, the Athenian and Roman bankers began to receive deposits of money, to make loans, sometimes based on valuables, and even to transfer money and credits. "Traces of credit by compensation and by transfer orders are found in Assyria, Phœnicia, and Egypt before the system attained full development in Greece and Rome. The books of the old Sanskrit lawgiver, Manu, are full of regulations governing credit. He speaks of judicial proceedings in which credit instruments were called for, of interest on loans, of bankers, usurers, and even of the renewal of commercial

[1] MacLeod: Theory of Credit, Bk. I, p. 315.

paper."[1] Clay tablets in the British Museum taken from the ruins of Babylon show that as far back as the days of Nebuchadnezzar loans of silver at interest were made and loans secured by mortgage on land.

In Athens and Rome the banking business was brought under official regulation, and an expansion of its functions naturally resulted. As commerce developed the bankers were called upon to make remittances of money from place to place. Out of this grew the use of the foreign bill of exchange. Then in time as the convenience of this service appeared, merchants and others began to deposit money and bullion with the money changers for safekeeping. So the business of the Argentarii, as the early Roman bankers were called, slowly evolved from that of mere money changing to the receiving of deposits, lending at interest, both their own money and that intrusted to them, dealing in bills of exchange, and other banking operations.

These private bankers of the mediæval Italian cities were the forerunners of modern banking. Because of the prejudice of the Church at that time against lending money at interest on the ground that it was usury, the Jews had a monopoly of the business in the Dark Ages, and they have been prominent as bankers ever since. Several times they were expelled from the countries of Western Europe, and the business was taken up by merchants of Lombardy and others. These Lombards extended their operations to England, where they advanced large sums of money to the Plantagenet kings upon the security of the customs. When Edward III defaulted on his payments, owing vast sums to the Lombardy bankers, they became bankrupt, ruining many wealthy families of Florence and causing widespread distress in that city.[2]

64. Public banks.—The Bank of Venice, founded in the twelfth century during the time that the island republic was at war with the Roman Empire, is spoken of as the first public bank. Originally it was not a bank in the

[1] Conant: Principles of Money and Banking, Bk. II, p. 168.

[2] Conant: History of Modern Banks of Issue, p. 24.

modern sense, however, being simply an office for the transfer of the public debt. The government secured funds by means of forced loans levied upon wealthy citizens. Instead of issuing bonds against these loans, as governments do to-day, the amount of specie loaned was credited to each subscriber. These credits could not be withdrawn, but could be transferred from one to another on the books of the bank. No notes were issued or checks used, the entries on the bank register being evidence of payment. The Venetian traders early saw the advantage of this transfer system over that of handling the coin, and voluntarily deposited their specie in the bank and obtained bank credits. Not until 1587, however, did Venice practice the actual business of deposit banking by receiving foreign coins at their bullion value and issuing certificates promising to return bullion of the same value of standard weight and fineness.

The Bank of Amsterdam was established in 1609 to meet the needs of the merchants of that city, which had become the center of the international trade of Europe, and to correct the disorders of private banking, especially those growing out of the accumulation of promiscuous and light-weight coins received in the extensive foreign trade of the Dutch.[1] The Bank of Amsterdam accepted all kinds of specie on deposit, crediting the depositors with its real value in standard coin. These deposits could be withdrawn at will or transferred on the bank's books from one person to another. The credits given for these deposits of coin or bullion came to be known as "bank money" and commanded a premium over the debased and mutilated coins in circulation. In the seventeenth century the bank adopted a plan by which a depositor of specie received an equivalent credit of bank money on the books and a "recepisse," a kind of certificate of deposit, which entitled him to withdraw it within six months upon returning the bank money with which he was credited and paying one-eighth of one per cent interest. The depositors had the

[1] Dunbar: Theory and History of Banking, Ch. VII.

privilege of renewing the deposit indefinitely at the end of the six months' period, but failure to withdraw or renew forfeited the deposit to the bank. For generations this bank money constituted the basis of the large foreign exchange of Amsterdam. With the establishment of "giro" or transfer banks at Hamburg in 1619, and at Nuremberg in 1621, these written orders came to be used in much the same way as the modern check and were widely employed. These early transfer banks did not make loans or incur any liability beyond the coin and bullion deposits.

The Bank of Amsterdam was not subject to official examination, but its credit was never questioned. Toward the close of the eighteenth century it became known that the bank had not lived up to its obligations to keep in its vaults an amount of coin and bullion equal to the "bank money" outstanding. The small committee of city "fathers" responsible for its administration made no report of its affairs, but in 1790 it leaked out that for years favored depositors had been permitted to overdraw their accounts and that enormous loans of specie had been made to the city and to the Dutch East India Company. These disclosures destroyed confidence, the premium on bank-money disappeared, and the bank became insolvent. It was finally closed by royal decree in 1819. The first bank of issue was the Bank of Sweden, founded as a private institution in 1656, but converted into a public bank in 1668.

65. Early banking in England.—The Jews were probably the first bankers in England. They came to the country with William the Conqueror. They knew the use of bills of exchange, and accumulated stocks of coins which they loaned at high rates of interest to the nobility and others upon the security of their estates. When the king and the nobles became so heavily in debt that they could not repay their loans, they repudiated the debts and expelled the Jews from the country.

After the expulsion of the Jews, the Lombards took up the banking business, lending at interest and remitting

money by means of bills of exchange. They were allowed to farm the customs as security for their loans. They combined the occupations of goldsmith, pawnbroker and banker. Lombard Street, the "Wall Street" of London, takes its name from them. Mention has been made of how Edward III defaulted in his payments to some of these Lombardy bankers, driving them into bankruptcy and causing as great distress as any of our modern crises.

The guild of goldsmiths, known as the Goldsmiths' Company, began to act as bankers about the middle of the seventeenth century. They collected rents for customers, and having vaults and strong boxes they received money and valuables for safekeeping. They also received money on deposit upon which they paid interest. A sort of checking system arose by customers giving written orders on their goldsmiths. They loaned out deposits and issued a crude sort of bank note.

66. The Bank of England.—The Bank of England was founded in 1694, not to aid commerce and business primarily, but to provide funds for the Government. The origin of many banks, both before that date and since, can be traced to fiscal rather than to commercial needs. The English government needed large sums of money to carry on its war with France. William Patterson, a Scotchman, proposed the establishment of a bank that should lend its capital to the Government and be permitted to issue notes to the amount of the loan. In 1694 Parliament chartered a corporation for ten years known as the Governor and Company of the Bank of England. The corporation was to lend to the Government at once £1,200,000 ($6,000,000) at 8 per cent interest, with the right to issue an equivalent amount of interest-bearing notes, to deal in bills of exchange, to buy and sell coin and bullion, and to make loans on the security of merchandise. The Bank of England differed from the earlier banks mentioned in that it was an incorporated company and a bank of issue. With that institution modern banking may be said to have begun.

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CHAPTER IX

BANKING DEVELOPMENT IN THE UNITED STATES

67. Early state banks.—The early experiments in banking in the United States were concerned largely with the issue of circulating notes and with the fiscal operations of the Government. During colonial times several banks were projected in New England with the right to issue circulating notes based on the security of land. These early banking projects assumed that if such security were given for the ultimate payment of the notes, current redemption would be unnecessary. Usually they had no actual paid-in capital but depended upon mortgages as a basis for their operations. These "land bank" schemes to supply a circulating medium were suppressed by the colonial or the English governments.[1]

The first bank established in the United States was the Bank of North America in Philadelphia, which was chartered by the Continental Congress in 1781. It was planned by Robert Morris, the Superintendent of Finance, in order to give financial support to the Revolution. A little earlier a number of patriotic Philadelphia citizens had organized the so-called "Bank of Pennsylvania," which consisted merely of private subscriptions to provide supplies for the army. The Bank of North America took over its foreign bills and assumed its claims against the Federation.

The Bank of North America was capitalized at $400,000,

[1] For a discussion of some of these Colonial banking schemes, see White: Money and Banking, Bk. III, Ch. IV.

of which the Government subscribed $250,000. There was so much doubt as to the power of the Continental Congress to charter a bank that a charter was secured under the laws of the State of Pennsylvania in 1782, and the bank operated under this charter until 1864, when it entered the national bank system. It also took out charters in several other states. The Bank of North America rendered an invaluable service by making loans to the government during the troubled years of the Revolution. About this time state banks were organized in Massachusetts and New York. The Bank of Massachusetts located in Boston was chartered in 1784. In the same year the Bank of New York began business under articles of association drawn by Alexander Hamilton, but it did not receive a charter until 1791.

Some of the restrictions imposed upon these early state banks are noteworthy. The charter of the Bank of Massachusetts limited its debts, except sums due to depositors, to twice the paid-in capital, and the debts of the Bank of New York, over and above deposits, were not to exceed three times the paid-in capital. This distinction between the bank's liability to depositors and to noteholders was due to the fact that deposits were not then created by loaning as they are to-day, but by the actual deposit of money. Actual money, not deposit currency, was used in making payments; hence deposits were distinguished from other liabilities in estimating the right to contract debts. Both banks were prohibited from dealing in merchandise. The Bank of New York was prohibited from dealing in the stocks (bonds) of the United States or any of the states, an evident attempt to separate banking and government. It was also prohibited from loaning on real estate or holding it except for banking purposes or when it was necessary to take it to secure the bank against debts previously contracted. This restriction was incorporated in the national bank law passed nearly eighty years later. The Bank of Massachusetts was also prohibited from dealing in bank stocks.

68. First Bank of the United States.—The first Bank of the United States was chartered by Congress in 1791, on lines laid down in a report by Alexander Hamilton, the first Secretary of the Treasury, as a part of the general scheme to support the public credit of the new Government.[1] The establishment of the bank was opposed on the ground that Congress was not empowered by the Constitution to create banks. Hamilton contended that this power was implied and his arguments prevailed with Congress and the President. The bank, patterned largely after the Bank of England, was intended to provide a depository for public money, to act as fiscal agent of the new Government, and to be a regulator of the currency.

It was capitalized at $10,000,000, divided into 25,000 shares. The Government was to subscribe $2,000,000, payable in ten annual installments with interest at 6 per cent. The balance was open to public subscription and was to be paid one-fourth in specie and three-fourths in government securities. The bank was governed by twenty-five directors, of whom not more than three-fourths were eligible for election the next succeeding year. Each stockholder was entitled to cast one vote for one share, an additional vote for the next two shares and so on, but no stockholder could have more than thirty votes, and no foreign stockholder could vote by proxy. The bank was allowed to issue notes which were legal tender in payment of all debts to the United States. The maximum amount of debts which it might owe at any time, except for deposits, was never to exceed its capital, except by authorization of Congress, and in case of excess the directors were personally liable for the amount. It could not buy or sell goods, except forfeited collateral, under penalty of forfeiting three times the value of the commodities. It might sell, but not buy, United States stocks. It was permitted to hold only such real estate as it needed for banking purposes or such as had been mortgaged to it as security

[1] See Holdsworth: First Bank of the United States (Nat. Mon. Comm.) for a full account of this bank.

or conveyed to it in satisfaction of debts previously contracted. Loans and discounts were not to be made at a rate above 6 per cent. It was subject to inspection by the Secretary of the Treasury. The charter was to run for twenty years.

The central institution was located in Philadelphia, having a capital of $4,700,000 assigned to it, and branches were established in New York, Boston, Baltimore, Washington, Norfolk, Charleston, Savannah and New Orleans. From the start the bank was in every way successful. It carried the bulk, probably two-thirds, of all government money deposited in banks; it made loans to the Government whenever requested, collected the bonds of importers for customs duties, and made transfers of money at the order of the Treasury without charge. It refused to receive the notes of state banks which did not promptly redeem such notes in specie and so became a powerful influence in establishing a sound currency. It loaned to private individuals and firms and paid dividends for twenty years at an average rate of 8 per cent.

Within four years after its establishment the bank had loaned to the Government $6,200,000, nearly two-thirds of its entire capital. The loan of so large a proportion of its funds crippled its services to commerce and manufacturers and made it difficult to advance temporary loans to the Government. It therefore requested the Government to repay the loans. As there was no market for government bonds it became necessary for the Government to sell its holdings of bank stock. These sales extending over a period of five years were made at premiums of from 20 to 45 per cent. In 1802 the Government ceased to be a stockholder. In addition to dividends averaging about $8\frac{3}{5}$ per cent the Government made a profit of $671,860.

In 1809 the stockholders of the bank petitioned Congress for a renewal of the charter, and Gallatin, Secretary of the Treasury, strongly indorsed the petition. Unfortunately the question of renewal became a political issue and strong opposition developed against it. The Republican party,

which had come into power, believed in the strict construction of the Constitution and so opposed the bank on the ground that it was unconstitutional. They denounced the bank as being aristocratic and under foreign influence, eighteen thousand of its shares being held abroad, though the management was in the hands of the seven thousand stockholders living in the United States. The state banks, which in 1811 numbered eighty-eight, felt the competition of the great bank and its branches, and they united with the political enemies of Gallatin in opposing renewal. The bill to renew the bank's charter was lost by a majority of one vote in the House and a tie in the Senate, and the bank went into liquidation. The assets were purchased by Stephen Girard, the merchant prince of Philadelphia, who organized the Girard Bank with a capital of $1,200,000. The stockholders of the Bank of the United States received $434 for each $400 share.

69. Second Bank of the United States.—During the War of 1812 with England the Government had to depend upon the state banks for financial aid and service. After the dissolution of the First Bank these state banks had sprung up in great numbers, and were poorly supervised and managed. The liquidation of the big bank caused a heavy drain of specie to pay European investors. In 1814 the banks all over the country, except in New England, suspended specie payments. The Government, whose funds were deposited in the state banks, defaulted on the interest of the public debt, and the whole country was in a condition of financial chaos. In this emergency Secretary of the Treasury Dallas proposed a national bank, but it was not until 1816 that the Second Bank of the United States was established.

The charter of the Second Bank of the United States was modeled after that of the First Bank. Its capital was $35,000,000, of which one-fifth was subscribed by the Government, payable in cash or in five per cent government notes. Private subscriptions were payable one-fourth in coin and the balance in government securities. These

subscriptions were payable in three installments, 30 per cent at once, 35 per cent in six months, and 35 per cent in one year. The bank was to be governed by twenty-five directors, of whom five were to be named by the President of the United States. It was required to pay a bonus of $1,500,000 in three annual installments. It was to act as fiscal agent of the Government in transferring and disbursing public funds. Provision was made for branches and twenty-five were finally established. Public funds were to be deposited with it "unless the Secretary of the Treasury shall at any time otherwise order and direct." Note issues were not to exceed the capital, and the bank was required to pay deposits as well as notes in specie, subject to a penalty of 12 per cent. This latter provision was intended to prevent a profit being made by suspending specie payments, as had been done by many of the state banks.

The bank restored financial order and soon brought about the resumption of specie payment. For the first few years, however, it was shamefully mismanaged and narrowly escaped disaster. Stock subscriptions were not collected promptly, loans were made on the security of the shares before they were fully paid for, and contrary to the charter dividends were paid upon these shares. The officers of the Baltimore branch defrauded it of $1,600,000, and the bank was probably saved from bankruptcy only by the Government's deposit, which amounted to about $8,000,000. In 1819, Langdon Cheves of South Carolina was made president of the bank and he at once set to work to put it on a sound basis. He borrowed $2,500,000 from Europe to strengthen the reserves, compelled stockholders to reduce their loans, regulated the note issues, and reformed the management. Under his able administration and that of his successor, Nicholas Biddle, the bank gained public confidence both at home and abroad and enjoyed a decade of great prosperity.

The bank was at the height of its popularity and influence when Andrew Jackson became President of the United

States in 1829. Through no fault of its own it became involved in a political struggle which finally brought about its downfall. Jackson in his first message to Congress questioned both the constitutionality and the expediency of the bank. Certain politicians who desired to secure the removal of the officers of the branch bank in Portsmouth, N. H., for their own private ends, persuaded Jackson that the bank and its management were hostile to his administration. In subsequent messages the President referred again to the bank, but his tone was less hostile. In the campaign of 1832 the Whig party decided to use the great popularity of the bank as a political asset against Jackson, and Henry Clay, the Whig candidate, came out emphatically for a renewal of the charter. Jackson accepted the challenge and renewed his hostility to the bank. While the campaign was in progress, Congress passed a bill giving the bank a new charter and the President vetoed it. The contest was then between Jackson and "the monster"; Jackson was reëlected by a large majority. In the following year Jackson caused the government deposits to be withdrawn from the bank and deposited in state banks, and the cancellation of the Government's stock holdings was requested. Before its federal charter expired the bank obtained a state charter from the legislature of Pennsylvania and reorganized with the same capital, $35,000,000. This was much too large a capital to be employed profitably in legitimate commercial banking in Philadelphia alone. The bank entered into various speculative enterprises, making large loans on the stocks of companies in all parts of the country. The panic of 1837 forced the bank to suspend, and in 1841 it again suspended and went into liquidation. The creditors were finally paid in full, but the stockholders received nothing. The failure of these two banks was due to the fact that they became involved in political strife without any intention of their own, and it seems probable that the fear of political control will prevent the establishment of a great central bank organized on a similar basis in the future.

70. Independent treasury system.—After the removal of the public funds from the big bank and its branches, the state banks were used as government depositories and fiscal agents. This did not work well, however, and after the panic of 1837 when most of these banks again suspended, the Government determined to keep the public funds in its own possession. Accordingly a law was passed in 1840 establishing the independent treasury system. In 1841, however, the Whigs came into power and repealed the law. The Whigs sought to establish a national bank again, but this was defeated by the veto of President Tyler. When the Democrats gained control of Congress once more they reëstablished the independent treasury system in 1846, and from that time until the Civil War the Government made its collections and disbursements entirely in specie and kept its funds in the Treasury and its branches, called sub-treasuries. Important changes were made in this system during and after the war, bringing the Treasury into close relations again with the banking and credit system of the country. It has proved clumsy and as a general thing has been an obstacle rather than an aid to the development of sound banking. Under the Federal Reserve system, however, by which the reserve banks become government depositories and fiscal agents, the operations of the independent treasury system will be greatly curtailed.

71. Suffolk Bank system.—Reference has been made to some of the early banks chartered by the states, and to the rapid increase in the number of such banks, especially after the dissolution of the First Bank of the United States. The main function of these early state banks, commonly known as "banks of issue," was to supply currency in the form of circulating notes. The check so largely used in our business transactions to-day was then but little developed. The "bills" of different banks circulated together and little regard was paid to the ability and willingness of banks to redeem these notes in coin.

Among the early movements toward a sound banking system the Suffolk Bank system of redemption established in Boston in 1818 is noteworthy. In New England the notes of country banks constituted a large proportion of the money in circulation. Because of the expense of redemption they circulated in Boston at a discount of from ½ to 5 per cent. The fact that the city banks would not accept these depreciated notes at par made them circulate all the more actively among merchants, while the notes of the city banks were presented promptly for payment at the banks.

The Suffolk Bank adopted a plan to compel the country banks to redeem their notes at par in Boston. It offered to redeem all such notes at par if the issuing banks would keep with it sufficient funds for the purpose and also a permanent cash deposit to compensate it for its trouble. At first the country banks were not favorably disposed toward this plan, but when six other Boston banks joined the Suffolk in collecting large amounts of country bank notes and sending them home for redemption, they were forced to accept the arrangement. As a result practically all the banks in New England joined the Suffolk system, which served as a clearing house for the bank notes of all New England. The system of redemption was strengthened by a law passed in Massachusetts in 1845 providing that no bank should pay out any notes except its own. Thus constant redemption was kept up, the average life of the bank note being about five weeks, and all notes were maintained at par. The Suffolk system worked so well that specie was seldom demanded and it was not until after the panic of 1857 that banks were required to keep a specified reserve. In 1858, Massachusetts passed a law providing for a reserve of 15 per cent against both notes and deposits, thus recognizing these two kinds of bank liabilities as equal in all respects.

72. Safety fund system.—In New York two systems of regulating note issues were adopted: the safety fund system, and the free banking system. The safety fund system

established in 1829 was a plan for the mutual insurance of banks.[1] It provided that each bank should pay annually ½ of 1 per cent of its capital into a bank fund in the custody of the state comptroller until its contribution should amount to 3 per cent of the capital. This fund was to be applied to the payment of all the liabilities (except capital stock) of failed banks, after the assets of the bank were exhausted. In 1837, after some experience with failures, the law was amended so that two-thirds of the fund might be used at once to redeem the notes of failed banks, the balance being reserved for other creditors. In 1840–1842, however, so many failures occurred that the fund proved inadequate to meet both notes and deposits, and in 1843 the law was again amended to make notes a first lien upon the entire fund.

This amendment came too late; in 1838 the bond deposit system was established and new banks after that date incorporated under the new plan, leaving a constantly decreasing number of banks to keep up the safety fund. The new constitution of New York adopted in 1846 prohibited the granting or extension of any special bank charters. As all of the safety fund banks held special charters the system gradually died out with the expiration of their charters.

The fundamental defect of the safety fund system was the failure to limit the use of the fund from the start to the prompt payment of the notes of failed banks. It has been estimated that a tax of ¼ of 1 per cent on circulation would have covered all failures and made the notes of all banks in the system secure. It is significant that the legislature of New York in changing the law in 1842 did not discuss the question of guaranty of deposits. The deposit business had not yet developed to the point where losses to depositors from failed banks approached the importance of losses to note holders. After about 1850, however, deposits increased rapidly and the panic of 1857 made clear the necessity of protecting depositors. The result

[1] Chaddock: Safety Fund System (Nat. Mon. Comm.).

was the adoption of a specie reserve against deposits, a feature carried over into the national banking system. While notes and deposits are equally liabilities of a bank, note holders are "involuntary creditors," unable for the most part to discriminate between the good and the bad notes. Depositors are voluntary creditors and so not in need of the same guaranty against loss as note holders.

Though the evolution of the safety fund idea was checked in New York by the introduction of a new system resulting from political conditions, it was adopted and used successfully in several other states and in Canada. Under the Canadian system, bank notes are a first lien against the assets, and are further protected by the double liability of stockholders. The final resort in case of failure, however, is the "circulation redemption fund," a sum of gold or Dominion notes equal to 5 per cent of the average circulation which every bank is required to keep on deposit with the Minister of Finance.

73. Free banking system.—Prior to 1838 bank charters in New York were granted by special act of the legislature and in many cases they were given as patronage to political favorites. As a result of the bank monopoly thus developed and the political abuses and corruption attending it, there arose a strong sentiment in favor of a "free banking" law. The free banking system established in 1838 authorized any person or association of persons to set up a bank and issue circulating notes by depositing with the state comptroller certain kinds of securities as a protection to note holders. These securities might consist of bonds of the United States, of the State of New York or other approved states, or mortgages on real estate worth double the amount of the mortgage and bearing interest at not less than 6 per cent. Not more than one-half of the securities pledged could consist of mortgages. No provision was made for redeeming the notes in specie, but when a bank failed, the securities were to be sold to redeem its outstanding notes.

Under this system anyone having the necessary securities might open a bank, and 133 new banks were organized within two years, many of them for the sole purpose of issuing notes. Of these, 26 failed between 1839 and 1844 and their notes were redeemed at an average of seventy-six cents on the dollar. These failures demonstrated that the securities deposited were not adequate to meet the notes. The law was then amended so that only the bonds of the United States and of the State of New York were acceptable as security and other faults were remedied as experience showed the weakness of the system. Under the amendment of 1840 country banks were required to redeem their notes in New York and Albany at a discount not exceeding one-half of 1 per cent (later reduced to one-fourth of 1 per cent). Even with this limitation many persons in the cities issued notes in the country towns, making a good profit by redeeming them at a discount. Later, no one was allowed to do a banking business except at the place of his actual residence, and all banks issuing notes were required to become banks of deposit. These changes in the law so strengthened the system that after 1850, failures were infrequent and the notes of failed banks were redeemed at par. But it was inelastic and unresponsive to the needs of the business community. Banks could issue notes only in proportion to the bonds deposited, which bore no relation to current business demands. This plan of note issue, however, became the model for the national banking system.

The free banking system appealed to democratic sentiment and was tried in some form in many other states. In the '50's several Western states adopted the plan of issuing notes against securities, generally without the restrictions which the experience of New York had shown to be necessary to protect the note holder. Bad management and lack of proper regulation led to failure and disaster in many of these experiments. Before they could be perfected the national banking system came in, superseding all other systems of bank note issue.

74. State-owned banks.—During this period of state banking several of the states established banks owned entirely or in part by the state. There was some question as to the right of these state institutions to issue circulating notes, but the Supreme Court held that such notes were not "bills of credit" within the meaning of the constitutional prohibition.[1] Mississippi, Arkansas, Florida, Kentucky and other states established state banks which came to disaster through politics, bad management, and failure to provide adequately for the redemption of note issues. While the experience of these banks owned and managed by the state were for the most part disastrous, a few stand out as conspicuously successful.

The State Bank of Indiana, established in 1834, was modeled largely after the Bank of the United States and had a monopoly of banking in the state. The state subscribed one-half of the $1,600,000 capital, all of which was paid in specie. Ten branches were established and each was allotted one-tenth of the capital, with practical control over its own local affairs. The issue of notes was limited to twice the amount of the capital. Each branch was required to accept the notes of other branches at par and to redeem its own notes in specie. The general management rested in the hands of a president and a board of directors, four chosen by the state legislature and one by the private shareholders of each branch. Each branch was liable for the debts of all the other branches, but its earnings belonged exclusively to its own stockholders. At first loans were made on real-estate security, but this practice proved to be unsafe and was soon discontinued. Later, loans were made to farmers on their personal notes and on their crops, but always for short terms. No branch could lend money on the security of its own stock, and no officer or director could borrow on more favorable terms than the general public, or indorse for others, or vote on questions in which he was financially interested. The bank's charter expired in 1859 and it went into liquidation,

[1] Briscoe v. Bank of Kentucky, 11 Peters 257.

the constitution of 1851 having forbidden the state to own bank shares. The state netted a profit of $3,500,000 from the bank during the twenty-five years of its existence. The owners of the old bank stepped into the charter of the Bank of the State of Indiana, which was incorporated while liquidation was in progress, and, though the state had no share in it, it prospered until 1865, when the federal tax of 10 per cent on the notes of state banks forced it out of existence.

The State Bank of Ohio, established in 1845, combined the safety fund and bond deposit principles. It had thirty-six branches, each liable for the note issues of all the others. Note issues were limited in amount to twice the capital and were secured by a fund, equal to 10 per cent of the circulation, consisting of money or bonds of the state or of the United States deposited with a central board of control. This bank was always solvent and successful, but passed out of existence with the expiration of its charter in 1866.

In 1842, Louisiana, after a disastrous experiment with a state-owned bank, established a sound banking system, some features of which are worthy of note. All banks were required to hold a specie reserve equal to one-third of their liabilities, while the other two-thirds was to be covered by commercial paper limited to ninety days. This was the only limit to the amount of circulation, but prompt redemption was secured by the requirement that no bank should pay out any notes but its own and that balances between banks should be settled weekly in specie. Examinations were made by a board of state officers quarterly or oftener. The directors were individually liable for all loans and investments made in violation of the law unless they had voted against such violation, and absence from five successive board meetings was regarded as a resignation. This law was the first one passed by any state requiring banks to keep a definite percentage of specie reserve against deposits. Under it the banks of Louisiana were sound and prosperous. They weathered the panic

of 1857 successfully and continued in successful operation until the capture of New Orleans during the Civil War.

Thus through varying degrees of success and failure the state banks were slowly working toward a system of sound banking suited to their local needs. The fiscal difficulties of the Civil War checked this process of evolution and led to the establishment of the national banking system, which has been ever since the backbone of our banking system.

Though some of these state banking systems secured to limited sections of the country a fairly uniform and safe currency, yet, considering the entire country, they lacked the essential quality of uniformity. The national banking system adopted in 1863 provided for the whole country a currency at once safe and uniform. Unfortunately, however, this blessing was secured at the expense of the equally vital quality of a good currency—elasticity. The lesson of the history of state banking is that the happy combination of safety, uniformity and elasticity of note issues can best be attained by resting them upon the general assets of the bank, with a guarantee fund for the redemption of the notes of failed institutions, and responsibility of each bank for the redemption of its own notes.

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CHAPTER X

FUNCTIONS OF THE BANK

75. Classification of banking institutions.—Before taking up the discussion of the functions and operations of the bank, it may be well to make a classification of the various types of banking institutions with which the modern world is familiar. Banking institutions may be roughly classified as follows:

I. Private banks.
II. Public or chartered banks.

1. Savings banks.
2. Trust companies.
3. Commercial banks.
   (a) State banks.
   (b) National banks.

To these might be added mortgage banks, exchange banks, loan and investment companies, and other special kinds of banking institutions, but the groups above embrace the most important types in the United States.

76. Private banks.—Private banking is, perhaps, the oldest form of banking, and some of the most powerful banking concerns in the world to-day are private institutions. They are distinguished from public or incorporated banks in that they are conducted as individual or partnership enterprises, and that until recently they have not been subject generally to the supervision of the state. The tendency

in recent years has been toward public regulation of private as well as incorporated banks. In several states, private banks are now forbidden to use a corporate name, or to use the name "bank" or any similar title. Some states require private bankers to have a minimum capital, and in a few Eastern states certain classes of private bankers are required to post a bond. In a few states the banking business is absolutely denied to unincorporated concerns.[1]

Private banks perform two principal functions: (1) as an adjunct to the brokerage business in large cities; (2) as a means of supplying banking accommodations in small communities where a state or national bank would not be profitable.[2] In larger cities their main business is dealing in securities, foreign exchange and foreign loans. Some of the larger banking houses have been prominent in recent years in promoting large industrial combinations and consolidations, and in underwriting stock and bond issues. Generally speaking, they do not make a practice of discounting commercial paper, making business loans, and accepting checking deposits as commercial banks do. In the smaller communities, having only meager banking facilities, they do perform this service.

Public or chartered banks are created by the state or Federal Government, which usually exercises some supervision over them. Savings banks, trust companies, and state commercial banks are chartered, that is, licensed to do business, by the several states; national banks are chartered by the Federal Government, under the terms of the national banking act and its amendments, and the Federal reserve banks are also chartered by the Government. In the early days of banking, each bank was created by a special charter granted by the legislature; now, nearly all the states have a general incorporation or banking law by complying with the terms of which a group of men proposing to establish a bank may get a charter.

[1] Barnett: State Banks and Trust Companies (Nat. Mon. Comm.), pp. 213-218.

[2] *Ibid.*, p. 206.

77. Savings banks.—Savings banks are of two general kinds: mutual and stock. The mutual savings bank has no capital and consequently no stockholders. It is organized for the exclusive benefit of the depositors. Apart from the expenses of running the bank, the depositors get all the profit arising from the investment of their deposits. In the stock savings bank, which has a capital and stockholders, the profits of the business, over and above the customary interest to depositors, go to the stockholders as in other types of banks.

The basic purpose of the savings bank is to encourage thrift and saving. It provides at once a safe place for the working classes to keep their savings, and an expert, reliable agency for their investment in the safest way. The deposits are invested largely in mortgages, bonds, and other high-grade securities. From the return on these loans or investments, interest is paid the depositors or credited to their accounts at periodic intervals, generally twice a year. Most savings banks require depositors to give notice, varying from two weeks to three months, of intended withdrawals, except where the amount is small. Primarily the savings bank serves the wage-earner, not the business man.[1]

78. Trust companies.—Trust companies were originally created to act as incorporated trustees, that is, as executors and administrators of estates, as guardians to minors, and as custodians of funds or property held in trust.[2] Quite generally, however, they were given additional power more or less closely related to their trust functions, as, for example, life, fidelity, and title insurance, and the granting of annuities. In recent years trust companies have greatly extended the field of their activities, and they now perform a great variety of functions in addition to those of a strictly fiduciary character. Many of them receive deposits other than trust funds, paying interest, like the savings banks, on permanent or "savings accounts," and a lower rate of interest on accounts subject to demand

[1] See Chapter XVIII.

[2] See Chapter XIX.

checks. They employ these funds in very much the same ways that commercial banks use theirs, and though they cannot legally "discount" commercial paper they accomplish the same thing by buying it. Thus, the trust company has encroached upon the field of both the savings bank and the commercial bank.

Some trust companies confine their activities mainly to the fiduciary or trustee business; others make banking their main business; and some specialize on the financial side. The practice is growing for trust companies to conduct both a trust and a banking business. Where this is the case the two departments are generally kept separate, each having its own records and clerks. Trust companies carry on many financial activities in which commercial banks cannot engage. They make loans on various kinds of property including real estate, and deal in stocks and bonds. Many of the larger trust companies, in common with banks, conduct a safe deposit business. In recent years trust companies have been conspicuous as trustees, registrars and fiscal agents in the organization and reorganization of large corporations, and as receivers for bankrupt or insolvent corporations. They have even acted as promoters of industrial corporations, underwriting their bonds and stocks and holding these securities as an investment.

Because commercial banks, and to a lesser degree trust companies, are more or less limited in the kinds of loans or advances they may legally make, special institutions have arisen to meet this condition. They are designed to meet the need for advances on particular forms of property and less easily realizable property, like land, chattels and merchandise. Of this nature are the agricultural banks of Europe, Egypt and the Philippines, the mortgage banks of Germany, the Crédit Foncier of France, and the various types of mortgage, loan and investment companies of this country.

Building and loan associations are designed to enable workingmen to build or buy homes for themselves, the

property being mortgaged to the association till the amount advanced is repaid. They are practically coöperative savings banks with this advantage over the ordinary savings institution that the funds are used by the depositors themselves in their own interest, and not loaned out to corporations and other business enterprises.

79. Commercial banks.—Commercial banks are classified according to the source of their charters, into state and national banks. National banks are organized under the national bank law of 1863 and its amendments. Later chapters discuss this law in detail, as well as the organization, management and operations of banks doing business under it. State banks are chartered by and subject to the supervision of the various states. In some states, private banks are not differentiated from state banks owing to the fact that the same regulations and laws apply to both incorporated and unincorporated banks. So, too, the distinction between state banks and stock savings banks, and, again, between state banks and trust companies is not at all marked or uniform under the varying laws of the different states. In this book, we shall use the term "state bank" in the sense of a bank of discount and deposit incorporated under state law.

The original method of creating banks was by special charter granted to each individual bank by the legislature. In many cases, these charters were perpetual, and a few banks are still doing business under their original charters. The special charter method, however, was inconvenient and often attended by favoritism and corruption. At an early date in our banking development, therefore, general banking laws were passed in the several states under which all banks stood upon equal footing.

Commercial banks organized under state laws perform their functions in essentially the same way as national banks. Indeed, there is little to distinguish them in everyday business, except that national banks bear the title "national," [1] and that state banks do not issue circulating

[1] There are a few special exceptions to this rule.

notes. Several factors enter into the determination of the relative advantage of incorporating under state law or the national system. In general, the state banking laws permit the organization of banks with smaller capital than under the national system. No national bank may be organized with less capital than $25,000; while in several states, banks may be started with as little as $10,000, and, in one state, $5,000. This makes it possible for small towns to secure the advantage of a bank under state law, which otherwise might have to do without. Until recently national banks were forbidden to loan on real estate, while state banks in most of the states are permitted to make such loans. Generally, the reserve required of state banks is lower than under the national system. National banks alone can profitably issue notes; the issues of state banks are subject to a tax of ten per cent, which amounts to a prohibition.

There is little or no justification for the popular opinion that national banks are safer and sounder than state banks. Most of the states now have excellent banking laws, which in many instances are modeled upon the national banking law. The percentage of failures among state banks is only a trifle higher than among national banks. The soundness of a bank depends, not upon the authority which issues its charter, but upon the ability and honesty of its management and supervision.

80. Functions of commercial banks.—Commercial banks are also called banks of "discount and deposit," and this term fairly summarizes their essential functions. They receive deposits of cash, checks and drafts, and make loans to the business public by discounting or purchasing commercial paper. To these functions may be added a third, that of providing a medium of exchange through the issue of circulating notes. Not all commercial banks issue notes —none are issued by state banks—and usually the medium of exchange supplied by banks in this way is of lesser importance than that afforded by means of their deposits. In the early days of banking, people used bank notes in

their business transactions much more than deposit currency in the form of checks and drafts, and the note-issuing function therefore was very important. Banks were commonly referred to as "banks of issue," and scores of them were organized for the purpose of lending money in the form of bank notes, but since about 1850, when deposit currency began to be more widely used, the note-issuing function of banks has been of subordinate importance.

A bank has been aptly defined as a manufactory of credit and a machine for facilitating exchanges. It manufactures credit by accepting the business prospects of its customers as security in exchange for its own bank credit in the form of a deposit account. Business credit cannot be conveniently used for current business transactions, but bank credit in the form of checks and drafts is widely acceptable and is the actual medium of exchange for a large part of the community.

Commercial banks serve the community in various other ways. In common with savings banks and other types of financial institutions, they provide a safe place for the keeping of money. Many state and national banks accept "time deposits," that is, deposits which are to be left in the bank for a stated time drawing a fixed rate of interest. These may be in the form of ordinary book deposits or they may be represented by "certificates of deposit." More and more, banks are engaging in the safe deposit business, renting vaults to their customers for the safe-keeping of money, jewels, deeds, wills, mortgages, bonds and other forms of valuable personal property. Large city banks have gone extensively into buying and selling foreign exchange and issuing letters of credit to facilitate the settlement of foreign obligations. Under the terms of the Federal Reserve Act of 1913 national banks are permitted to make loans on farm property and to exercise some of the functions of trust companies. In recent years some of the larger city banks have entered the field of "financial" banking, buying and selling securities, un-

derwriting the securities of industrial enterprises, and furnishing funds for the floating or "promoting" of industrial corporations. This may be a safe practice where the banking department and its funds are kept separate and distinct from the financial department; but, if they are not kept inviolately distinct, grave danger may arise. The primary business of commercial banking is to furnish temporary capital to business enterprises in the form of short-time loans, not to supply funds for permanent investment.

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CHAPTER XI

THE NATIONAL BANKING SYSTEM

81. Origin of the system.—The national banking system established in 1863 grew out of the financial difficulties of the Civil War. It will be remembered that after the adoption of the independent treasury system in 1846 the Government had no relation with the banks of the country, keeping its funds with the various sub-treasuries established in several leading cities. When the war broke out the Government was compelled to turn to the banks for help. Instead of meeting the war expenses by taxation, it resorted to loans, which could be obtained quickly only from the banks. The banks of New York, Philadelphia and Boston agreed to advance $150,000,000 in gold on three-year notes bearing interest at 7.30 per cent to be reimbursed from the proceeds of bond sales, and they also undertook to market the bonds when they were issued.

In August of 1861 the Government began to issue non-interest bearing notes payable on demand at the sub-treasuries. The banks objected to the issue of these notes because it threatened their own circulation and also the permanence of redemption in specie. When later in the year heavy issues of these notes were made the banks found that their specie reserves were falling rapidly and on December 31, 1861, they suspended specie payment. The Government having no adequate fund of specie to sustain the mass of paper issued was likewise compelled to suspend. Early in 1862 the Government resorted to the

issue of "legal-tender" notes without interest and with no provision for redemption. The result was a general disappearance of coin, a great depreciation of the whole paper currency, and a heavy increase in the cost of carrying on the war.

In this emergency, Congress was ready to accept a plan for a national banking system which Secretary of the Treasury Chase had proposed as early as 1861. He urged its adoption, first, to provide a market for government bonds so as to replenish the public Treasury; and second, to provide a safe and uniform national currency. The latter purpose was finally accomplished, but the adoption of the national system brought little aid to the Treasury during the war. The organization of national banks proceeded so slowly during the war that the Government received from this source only about $100,000,000, which was less than 4 per cent of its borrowings during the war.

The original act was defective in many respects, so in 1864 it was completely revised. Even then the state banks which were expected to reincorporate under the new law did not do so in large numbers. In 1865, however, Congress passed a law imposing a tax of 10 per cent on all notes issued by state banks. As this provision practically made it impossible for state banks to issue notes their conversion into national banks soon became general. A national currency, safe and uniform, was thus insured; safe because protected by government bonds, and uniform because issued by a government bureau to all banks, in the same form and under similar conditions. The chief provisions of the national bank law, as amended from time to time, will now be briefly reviewed.

82. Bond deposit and circulating notes.—The national banking act provides that banks incorporating under it shall buy government bonds[1] and deposit them with the Treasurer of the United States, and that they may receive in return circulating notes up to the par value (originally

[1] The Federal Reserve Act of 1913 repealed this provision requiring national banks to deposit a stated amount of government bonds with the Treasury.

only 90 per cent) of the bonds so deposited, but not in excess of their capital. Any number of persons, not less than five, may, subject to the approval of the Comptroller of the Currency, organize a banking "association" to have succession for twenty years. The amount of capital required is based upon the population of the place where the bank is located. The smallest capital permitted is $25,000 and that only in places of three thousand inhabitants or less. In towns of six thousand or less the capital must be at least $50,000; between six thousand and fifty thousand, $100,000; and in cities of fifty thousand or more, national banks must have a capital of not less than $200,000. At least one-half of the capital must be paid in before a bank begins business, and the balance in installments of not less than 10 per cent monthly. As no provision was made for more than one place of business, national banks were not allowed to establish branches. The bank must have at least five directors, each of whom must own ten shares of its stock.[1] Stockholders are individually liable for all obligations of the bank to an amount equal to their stock holdings.

Prior to the passage of the Federal Reserve Act in 1913 each national bank before opening for business was required to deposit with the Treasurer of the United States a certain amount of government bonds. Against the bonds thus deposited a bank was entitled to issue circulating notes up to the par value of the bonds, but not exceeding the market value thereof and not exceeding its paid-in capital. National bank notes are not legal tender for private debts, but are receivable and payable by the Government except for import duties and interest payments on the public debt. Every national bank must receive the notes of every other at par, and redeem its own notes on demand at its own counter. It is also required to keep on deposit in the United States Treasury a sum of "lawful money" equal to 5 per cent of its circulation for the redemption of its notes. This is not a "safety fund," for

[1] Five shares in banks with only $25,000 capital.

each deposit belongs to the bank making it, and is held for the redemption of its own notes alone. The act of 1863 required each bank to redeem its notes over its own counters only, but the amended act of 1864 provided for the establishment of redemption agencies in certain leading cities. In 1874 a new system of redemption was provided, making the Government responsible for the redemption of mutilated notes from the redemption fund which each bank must keep good at all times. The expense involved in sending these notes to Washington and replacing them with new notes is borne by the banks.

The present system of redemption does not test effectively and continuously the ability of every bank to redeem its notes on demand. To apply such a test it would probably be necessary to forbid any bank to pay out any notes except its own as in the Suffolk Bank system. The chief effect of the system has been to provide a method for replacing worn and mutilated notes with new currency. The Government is ultimately responsible for the notes of every national bank. It is bound to pay on demand all national bank notes presented, and not merely to the extent of the redemption fund. To protect it in this responsibility it has ample security as follows: (1) the bank's bond deposit beyond the par value of which a bank cannot issue notes; (2) the 5 per cent redemption fund; (3) a first lien upon the bank's assets; (4) the personal liability of stockholders.

Until recently banks could reduce their circulation only by redeeming their notes over their counters and sending them to Washington to be cancelled, or by depositing money to an equal amount in the Treasury, receiving an equivalent amount of the bonds deposited. Prior to the enactment of the Federal Reserve law the total amount of bank notes that could be retired by all the banks in the system in one month was $9,000,000 [1]; but provision was made in the new law for the gradual withdrawal of all

[1] Prior to 1908 only $3,000,000 a month.

national bank notes and the substitution of reserve bank notes. National bank notes are subject to a federal tax at the rate of one-half of 1 per cent annually when secured by 2 per cent bonds, and 1 per cent when secured by bonds bearing a higher rate.

It is a common fallacy that national banks through the note-issue privilege make a double profit, by receiving interest on the bonds deposited with the Treasury and again on the lending of the notes issued to the bank on these bonds. The fact that thousands of banks have preferred to organize under state charters, and the further fact that in recent years the amount of bank notes outstanding has been less than 70 per cent of the total amount which the national banks could legally issue, offers sufficient refutation of the double or extraordinary profits theory. A bank makes money by lending its credit in the form of deposits or of bank notes. Profit is made upon deposits in precisely the same way as upon notes. A national bank has the advantage over other banks of being able to choose between the two methods of using its credit, but its investment is limited to its capital plus its credit which is also the measure for non-issuing banks.[1] The profit which a national bank can make by lending its credit in the form of circulating notes depends largely upon the premium it must pay on the government bonds purchased. It also depends upon the current rate of interest and the opportunity the bank has of lending the money if it does not use it to purchase bonds. The bank receives no interest on the money used to buy bonds in excess of the amount of notes received for issue. According to the annual report of the Comptroller of the Currency for 1913, the profit on bank circulation based on Panama Canal bonds at 101¼ was about 1⅓ per cent.[2] This calculation assumed that money was worth 6 per cent and that the banks were able to lend all the notes issued to them against their bonds.

[1] Dunbar: Economic Essays, p. 183.
[2] Report of Comptroller of the Currency, 1913, pp. 23-24, 126.

The banking act requires each bank before declaring a dividend to carry one-tenth of its net profits for the preceding half-year into a surplus fund until it has accumulated a sum equal to 20 per cent of its capital. Many banks provide a surplus fund at the time of organization; thus, for example, if the subscribers raise $500,000 to start the bank, they may choose to divide that amount into $250,000 capital and $250,000 surplus.

83. Reserves.—To insure prompt payment of its deposit liabilities each national bank is required to keep a reserve of lawful money which includes gold and silver coin, gold and silver certificates and United States notes. In the original act certain cities were designated as "reserve cities" and in those cities, prior to 1914, each national bank was required to keep a reserve equal to 25 per cent of its deposits. Banks in non-reserve cities, commonly known as "country banks," were required to keep only 15 per cent reserve. In three of the largest cities, New York, Chicago and St. Louis, called "central reserve cities," banks were required to keep their 25 per cent reserve in their own vaults. Banks in the reserve cities, however, were allowed to keep one-half of their legal reserve in central reserve cities, and banks in the non-reserve cities might keep three-fifths of their reserves in reserve cities. The actual cash reserve required to be held in its own vaults by each bank was, therefore, only 6 per cent for country banks and 12½ per cent for the reserve city banks. When a bank's reserve falls below the legal minimum it cannot increase its liabilities by making new loans or discounts, except by the purchase of sight bills of exchange, nor declare any dividend until the reserve is restored. Because banks in the reserve cities ordinarily have better facilities for loaning funds at all seasons, they have been willing to pay a low rate of interest on the reserve balances of country banks, though such balances are subject to withdrawal at any time. This resulted in a concentration of a large part of the reserves of the national banks in central reserve cities, especially in New York. But the

New York banks loaned these "bankers' balances" as freely as individual deposits, keeping as a rule only the required reserve against them. In order to have quick control over these deposits New York banks habitually loaned a considerable part of them on call. The demand for such loans comes from stock brokers and others dealing in speculative securities. As a result of the piling up of reserves in New York and the lending of them for speculative purposes the reserve system as a whole was unstable and broke down repeatedly under financial stress. This was long recognized as one of the chief weaknesses of our banking and credit system.

The Federal Reserve Act of 1913 reduced the percentage of reserve which each class of national banks is required to keep and provided for the deposit of part of these reserves in the twelve Federal reserve banks where they will be more immediately available when needed by individual banks to meet sudden or unusual demands for money. Under the new law national banks in central reserve cities are required to keep a reserve of 18 per cent of their demand deposits, of which 6 per cent must be kept in their own vaults, 7 per cent in a Federal reserve bank, and 5 per cent either at home or in the Federal reserve bank; reserve city banks must keep a reserve of 15 per cent—5 per cent in their own vaults, 6 per cent in a Federal reserve bank, and 4 per cent in either; and country banks must keep 12 per cent—4 per cent in their own vaults, 5 per cent in a Federal reserve bank, and 3 per cent in either. All national banks are required to keep a reserve of 5 per cent of their time deposits distributed in the same proportion as prescribed for demand deposits.

84. Powers.—The national bank act gives national banks the following general powers: to receive deposits; to discount promissory notes, drafts, bills of exchange and other evidences of debt; to buy and sell exchange, coin and bullion; to loan credit on personal security; to issue circulating notes; and to exercise such incidental powers as shall be necessary to carry on the business of banking.

With these powers go certain restrictions and limitations.

A national bank cannot become indebted to an amount exceeding its capital except for circulating notes, deposits, drafts against its own funds and unpaid dividends. The capital cannot be withdrawn in the form of dividends or otherwise. If the capital should become impaired by bad debts or otherwise, it must be restored within three months under penalty of being closed by the Comptroller. A national bank cannot lend, directly or indirectly, more than one-tenth of its capital and surplus to one person, firm or corporation. It cannot make loans on the security of its own shares, or buy or hold them unless they are taken as security for a debt previously contracted, in which case they must be sold within six months. A national bank may own only such real estate as is necessary for the conduct of its business and such as comes into its possession in the settlement of previously contracted debts. If it takes real estate in this way it must dispose of it within five years. Under the Federal Reserve Act, however, any bank not in a central reserve city may loan 25 per cent of its capital and surplus, or one-third of its time deposits, on improved and unincumbered farm land within its Federal reserve district. Such loans are limited to 50 per cent of the actual value of the land and may not run for more than five years. No bank may certify a check for a larger amount than the customer has on deposit.

85. Relation to the Treasury.—The policy of separating the fiscal activities of the Government from banks and banking which was adopted with the establishment of the independent treasury system, was abandoned when the national banking system came into existence. Intimate relationship was established between the national banks and the Government through the requirement that every bank must buy government bonds, and become subject to the supervision of a government official, the Comptroller of the Currency. He supervises all the details involved in organizing and chartering the banks, the issue and redemption of circulating notes, and enforces the various pro-

visions of the national bank act. Under his direction all the banks are examined periodically to see that they are conforming to the requirements of the law and are solvent, and once a year he makes a report to Congress showing in detail the condition of all banks in the system. Public revenues except customs receipts may be deposited in banks to be designated as public depositories by the Secretary of the Treasury, who must require the deposit of government bonds "and otherwise" as a security for their repayment. Provision was made also for using the banks as fiscal agents of the Government, and in this relation they have rendered valuable service in placing public loans and in refunding the public debt.

Until 1908 the banks were not required to pay interest on deposits of Government funds. In that year an act was passed requiring them to pay interest at the rate of at least 1 per cent on public deposits and on May 1, 1913, the rate was raised to 2 per cent. A few banks refused to pay the higher rate and their holdings of government deposits were apportioned to other banks. On the date mentioned there were 607 national banks acting as government depositories holding a total of about $53,000,000. The amount of government money held by the banks was never large until 1901 when for the first time the $100,000,000 level was reached. At the close of 1898 government deposits were only $38,748,000, but at the end of the year 1907 they amounted to nearly $250,000,000. In one month of that year the Treasury deposited in the banks nearly $80,000,000 to help check the panic. Banks are not required to keep a reserve against government deposits.

86. Organizing a national bank.—The first official step in the organization of a national bank is an application to the Comptroller of the Currency, signed by at least five persons who expect to become stockholders. This application must state the residence, occupation and financial standing of each person signing, also the exact title of the proposed bank, its location and the amount of capital it is to have. The application should bear the indorsement of

a United States Senator, Representative or other prominent public official. This formal request for permission to organize a bank does not imply that the Comptroller will sanction it. Because bank stock is generally a very desirable investment, many banks are proposed without due regard for their necessity or their prospects of success. Before passing upon the application, the Comptroller sends a copy of it to the national bank examiner, to the Congressman for the district where the bank is to be located, and to the state superintendent of banks with a request for information regarding the character and standing of the applicants, the need for a bank, and the probability of its success. Out of 425 applications for authority to organize national banks in the year ending October 31, 1910, 315 were approved and 74 rejected. The rejections were due to: ample banking facilities already existing in the place; population and business too limited to warrant success; character of the applicants and others interested.[1]

Upon receiving the approval of the Comptroller, the organizers next execute "articles of association," stating the title and location of the bank, the number of directors, with their names if they have been elected, the amount of capital stock, etc. The articles of association must be signed by at least five persons, and certified by the president or cashier.

At the time of, or after the execution of, the articles of association, the same persons must execute an "organization certificate," stating the title, location and amount of capital, and the names and residences of all the subscribing stockholders. The minimum amount of capital required to start a national bank varies with the size of the place.

Population	Capital
3,000 or less	$25,000
6,000 or less	50,000
50,000 or less	100,000
Over 50,000	200,000

[1] Report of the Comptroller of the Currency, 1910, p. 23.

Prior to 1900 the minimum capital of a national bank was $50,000. The change to $25,000 was followed by a rapid increase in the number of small banks, not only in the sparsely populated states but also in the older states in the eastern part of the country. There is no legal limit to the maximum amount of capital a national bank may have. One-half of the capital must be paid in cash at the time of organization, and the rest in installments of not less than ten per cent a month, though all may be paid in a shorter time.

If the articles of association do not name the first board of directors, they should now be elected or appointed. There must be at least five directors, each a citizen of the United States and owner of at least ten shares of stock. If the capital of the bank does not exceed $25,000, the director need not own more than five shares of stock. Three-fourths of the board must have lived at least a year in the state or territory, and must continue to live there while serving as directors. Each director must take an oath that he will diligently and honestly administer the affairs of the association and will not knowingly violate the law or willingly permit its violation. Violation of this oath may occasion the dissolution of the bank.

As soon as practicable after the directors have been chosen, they should elect the president, vice-president and cashier, elect or appoint such other officers as may be required, and adopt by-laws defining and regulating the duties of the officers, the holding of elections, and other matters affecting the internal organization of the bank. The directors now call in the subscriptions to the capital stock. As soon as the required 50 per cent is paid, a certificate of payment, signed and sworn to by the president or cashier, is executed in duplicate, one copy going to the Comptroller, the other being kept by the bank. At this time the directors should procure a bank seal, bearing the full corporate title of the bank including the name of the city.

Previous to the passage of the banking law of 1913 all

national banks were required to deposit registered government bonds with the Treasurer of the United States, which bonds or others afterwards substituted for them, were to remain on deposit with the Treasurer during the bank's existence. Banks having a capital of $150,000 or less were required to deposit bonds equal to at least one-fourth of their capital, and banks with a larger capital deposited at least $50,000 of bonds. Against the bonds thus deposited circulating notes could be taken out to the par value of the bonds, but not exceeding the capital stock of the bank. All national bank notes are supplied through the office of the Comptroller who has the plates engraved and the notes printed. The bank has to pay for engraving the plates, but no charge is made for printing the notes. National bank notes are usually in denominations of $5, $10, $20 and $50, but not more than one-third of the total issue may be in $5's. The new notes are sent by express to the issuing bank at the bank's expense. After being signed by the president or vice-president and the cashier, they are ready for circulation.

All the requirements of the law having been observed and the necessary papers duly filed, the Comptroller issues a certificate authorizing the bank to begin business. This certificate or charter, gives the bank the right to carry on business for twenty years. At the end of that time the charter may be extended for another twenty years, and re-extended for a like period. Since the passage of the national bank act Congress has twice provided for the extension of charters, first in 1882 and again in 1902. Application for extension of the charter must be made to the Comptroller, accompanied by the required amendment to the articles of association. This amendment must be signed by the holders of at least two-thirds of the stock. The Comptroller has a special examination made of the condition of the bank. If the report of the examiner is favorable, the Comptroller issues a certificate of extension.

State banks may be converted into national banks (1) by having the owners of two-thirds of the capital stock au-

thorize a majority of the directors to execute an organization certificate; or (2) by going into voluntary liquidation and reorganizing according to the formalities described above. The method of organizing Federal reserve banks is explained in the last chapter of this book.

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CHAPTER XII

ADMINISTRATION

87. Stockholders.—Great care should be exercised in selecting the stockholders of a bank for they are the source of all ultimate authority. The national bank act provides that stockholders must be "natural persons," that is, individuals who can legally hold property in their individual right, not corporations or firms. Stockholders receive from the banks certificates of stock, signed by the president and cashier certifying to the number of shares of stock to which they are entitled. The par value of national bank shares is $100. Every bank keeps a stock book containing blank certificates with stubs attached. When a certificate is issued to a stockholder, it is numbered, and the same number is put on the stub, together with the date of issue, the number of shares and the name of the holder. In this way the stub is a copy of the essential parts of the certificate. Stock certificates are usually transferable only on the books of the bank upon surrender of the certificates. Transfers must be made in person or by authenticated power of attorney. When transfers are made a new certificate is issued to the new holder, and the surrendered certificate is cancelled and pasted in the stock book opposite its stub. If a stockholder transfers only a part of his shares, the old certificate is surrendered and two new ones are issued, one to the new holder for the number of his shares, and another to the old owner for the number of shares still retained. Most banks keep a stock ledger con-

taining a record of stockholders' accounts and each transaction in the stock.

Stockholders of national banks, and of some state banks, are liable in case of failure of the bank for an amount equal to their holdings. Suppose, for example, that through bad management or fraud a bank having a capital of $2,000,000 and deposits of $5,000,000 fails; in such a case the stockholders not only lose their investment, but they are liable for $2,000,000 more which will be used to pay the depositors as far as it will go. In the past there has been much evasion of this liability and efforts have been made to fix more firmly the liability of stockholders for the debts of failed banks. This has at last been brought about by the Federal Reserve Act, a section of which provides as follows: "The stockholders of every national banking association shall be held individually responsible for all contracts, debts and engagements of such association, each to the amount of his stock therein, at the par value thereof in addition to the amount invested in such stock. The stockholders in any national banking association who shall have transferred their shares or registered the transfer thereof within sixty days next before the date of the failure of such association to meet its obligations, or with knowledge of such impending failure, shall be liable to the same extent as if they had made no such transfer, to the extent that the subsequent transferee fails to meet such liability."

88. Directors.—The national bank act requires that every national bank shall have at least five directors. There is no legal limit to the maximum number and some of the large city banks have boards of fifteen, twenty-five, or more directors. Every director must be a citizen of the United States and at least three-fourths of them must be residents of the state or territory where the bank is located during their continuance in office, and must have resided there for at least a year before their election. Each director must own at least ten shares (five shares where the capital is $25,000) of the capital stock of the bank, which

must not be hypothecated or pledged for any loan or debt.

The board of directors are responsible in a general way for the entire policy and administration of the bank, and the measure of its success will depend upon their ability and integrity. They choose from their own number the president of the bank who is usually the president of the board also, and the cashier who acts as secretary of their meetings. They appoint all the employees either directly or by approval of those selected by the officers. They are responsible for the employment of the bank's funds in loans and investments, and they determine the disposition of its earnings. In short, though the details of conducting the bank's everyday business must be left to the officers and clerks, the board of directors are responsible ultimately for everything done or projected by the bank. Furthermore, each director takes an oath that he will, as far as the duty devolves upon him, diligently and honestly administer the affairs of his bank, and will not knowingly violate, or willingly permit to be violated, the banking law. In case of such violation every director who participates in or assents to it is liable for damages which may have been sustained in consequence of it.

In earlier years these very important duties and responsibilities were often lightly assumed and just as lightly performed, but more and more public opinion is demanding of bank directors closer attention to the affairs of the bank. It is not customary to pay salaries to directors, yet the conscientious director has to give a good deal of his valuable time and thought to the bank's affairs. In some of the larger city banks directors receive a fee for each meeting they attend, but this does not compensate for the time they must take from their own business. Occasionally an influential business man will permit his name to be proposed for director though he realizes that he cannot give the position proper time and attention. He may feel flattered by the honor of so dignified a position, or he may think that it will give him added business prestige. No one, however, should accept the position of director who

cannot faithfully discharge the obligations of the position.

Various considerations enter into the selection of the board of directors. Sometimes they are chosen because they are among the largest stockholders, and so have a keen interest in the prosperity of the bank. In too many cases a small group of men secure a majority of the shares and elect themselves and their close associates to the board in order to control the policy and resources of the bank. Often an influential citizen is chosen because he will bring a large amount of business to the bank. A bank tries to have on its board prominent representatives of leading lines of business in the town. The most important duty of the directors is lending the funds of the bank. Applications for loans come from men in various lines of trade, and it is advantageous to have on the board a person who has special knowledge of the business in which the applicant is engaged. Above all, a bank director should be a man of unblemished character, enjoying the respect of the community, and a reputation for sound judgment, prudence and common-sense. If he is a director in other important business concerns, insurance companies, trust companies, banks and railroads, it indicates that other men think well of him, and can work harmoniously with him in positions of responsibility. There has been a marked tendency in recent years toward "community of interest" among different types of financial institutions by means of interchange of directors. Thus one or more directors of a powerful trust company are elected to the directorate of a national or state bank and vice versa. Something of the same purpose is found in the growing practice of electing to the board of the large city banks directors of financial institutions in other cities with which it may be desirable to have close business relations. This system of "interlocking directorates" has recently come in for considerable criticism.

89. Duties and responsibilities.—In recent years no question affecting banking affairs has been more widely discussed than that of the duties and responsibilities of di-

rectors. The legal duties and responsibilities are clearly defined and to-day, it may be said, are performed with reasonable care and fidelity. But in the banking business there is a great range of duties other than those prescribed by law, and it is here that bad judgment, dishonesty or ignorance may work lasting harm to the bank. Some years ago, Comptroller Ridgely said in a public address: "When a bank does fail, it is the fault of the board of directors." Now, it is clear that directors cannot have personal knowledge of all the varied details of the bank's business. To do so would require them to give almost as much time and attention to the bank as they do to their own business. Few men would be willing to serve under such onerous conditions. Moreover, this detailed work is what the president, cashier and clerks are employed to do. It would seem that directors have discharged their duty when they exercise care in selecting the officers of the bank, attend directors' meetings with a fair degree of regularity, and keep careful watch upon the loans of the bank. The courts have held, however, that "the duty of the board of directors is not discharged by merely selecting officers of good reputation for ability and integrity, and then leaving the affairs of the bank in their hands without any other supervision or examination than mere inquiry of such officers, and relying upon their statement until some cause for suspicion attracts their attention. The board is bound to maintain a supervision of the bank's affairs, to have a general knowledge of the character of the business and the manner in which it is conducted, and to know at least on what security its large lines of credit are given." [1]

One of the earliest cases decided by the United States Supreme Court in relation to the liabilities of national bank directors was that of Briggs v. Spaulding. This case is the more famous because Spaulding, one of the defendants, was chairman of the Ways and Means Committee that framed the national bank law. He was a director in the First National Bank of Buffalo which was ruined

[1] Gibbons v. Anderson, 80 Fed. Rep., 345.

by its president. The creditors brought suit against the directors for neglecting their duties. It was shown that the directors failed to attend the meetings or to examine into the management of the bank's affairs, but left the executive officers to manage the bank without supervision. Mr. Spaulding was an old, infirm man and it was difficult for him to attend the meetings, and another director had been in Europe for some time. Most of the directors, however, had no good reason for non-attendance. In this case the court said: "Directors of a national bank must exercise ordinary care and prudence in the administration of the affairs of a bank, and this includes something more than officiating as figureheads. They are entitled under the law to commit the banking business as defined, to their duly authorized officers; but this does not absolve them from the duty of reasonable supervision, nor ought they to be permitted to be shielded from liability because of want of knowledge of wrong-doing, if that ignorance is the result of gross inattention."[1]

According to ex-Comptroller Ridgely, the most frequent cause of bank failures is the granting of excessive credit to the officers or to a single concern or group of allied concerns in which generally the officers or directors of the bank are interested. Since the national bank law has been amended so as to limit the loans made to any one person or corporation to one-tenth of the capital and surplus, instead of one-tenth of the capital, little excuse remains for not adhering strictly to the law.

90. President.—The president of a bank is selected by the directors from their own number and is usually reelected from year to year. He generally presides at their meetings, reports to them or has the cashier report upon the doings of the bank and sees to it that their directions and policies are carried out. In the small country bank the president is often only the nominal head, chosen because of his wealth or influence and not expected to be active in its management. Again a president may be se-

[1] Briggs v. Spaulding, 141 U. S., 132.

lected who has large business interests outside the bank, but who is recognized as the ablest man on the board and the natural choice for the position. In either case much of the active management of the bank must be left to the cashier, but the latter type of president, by his energy and ability, is likely to dominate the entire policy of the bank. The active president of the larger bank is usually a trained banker, who has been, perhaps, vice-president or cashier, and who entered the bank as messenger or bookkeeper.

The chief single duty of the president has to do with lending the bank's funds. In some banks the management of loans and discounts is left largely to the discretion of the president with but slight supervision on the part of the board of directors. It may safely be stated, however, that the "one-man bank" is never on as sound a basis as a bank in which the loans are carefully considered by a capable board of directors. As a general rule the president is given wide authority in granting loans, subject to maximum limits established by the board. In some banks the board of directors, or a finance or discount committee, meets every day or several times a week to pass upon the paper offered for discount, thus relieving the president of much of the responsibility. The modern practice of requiring borrowers to submit detailed statements of their business, and an alert credit department, have been great aids to the president and the board in making loans and discounts.

In many of the smaller banks the vice-president has very little to do. Often he is merely one of the directors who temporarily assumes the duties of the president in his absence or in case of his disability. The signing of circulating notes is the only duty that the vice-president is especially authorized by law to perform, and this of course only in the absence or inability of the president. In large banks, however, the vice-president shares with the president in the active management, and is a very busy man. He receives customers, looks after certain classes of

loans, manages some particular department, and relieves the president of many routine duties. Some banks have more than one vice-president. As a result of consolidations a bank in Chicago has no less than six vice-presidents, all active in the management of the bank.

91. Cashier.—The cashier is the chief executive officer and has general oversight of the internal workings of the bank. He should be thoroughly familiar with the details of all the departments. Generally he has had practical experience in the various departments of the bank and so can intelligently advise and direct the force of tellers and clerks. He usually acts as secretary of the board of directors. He verifies reports and certificates, and signs the circulating notes. The stock ledger and the dividend book are usually in his charge. He is responsible for the funds, securities and valuables of the bank; he signs the cashiers' checks, bank drafts and vouchers; and in some cases attends to the buying and selling of exchange. He may rediscount paper or pledge securities for borrowing money for the bank, but such dealings should be with the knowledge and consent of the directors.

New depositors are referred to the cashier, and he is careful to satisfy himself that their accounts are desirable. A bank is not compelled to accept any and every account, and subsequent loss can sometimes be guarded against by refusing the accounts of undesirable firms. Some banks make it a rule not to carry any account below a certain minimum amount. The cashier is expected to know the condition of the bank at all times and to be able to advise the officers how any department stands. Every day the head bookkeeper makes up for him a condensed statement of the assets and liabilities, so that he can tell at a glance the condition of the deposits, loans, cash reserves and other important items. Another duty that falls to the cashier is to conduct the correspondence. In the larger banks having many correspondents this is a task of great magnitude and importance, and has to be divided up among several assistants.

In small banks where a special credit department is not warranted, the cashier is the chief credit officer. Though he may not have authority to grant loans he usually has to supply to the loaning officer or committee information regarding the credit and financial responsibility of the applicant. Formerly the cashier was not allowed to hold stock in his own bank, but now he is generally a stockholder and often a director. Surely as a stockholder he loses nothing of his interest in the general welfare and prosperity of the bank. Because of the many duties required of the cashier, the larger banks find it necessary to give him one or more assistants. In the Chicago bank mentioned above as having six vice-presidents, there are nine assistant cashiers. As indicated by the title, the duty of the assistant cashier is to assist the cashier in such ways as he or the directors may outline, and to perform the official duties of the cashier in his absence.

Some city banks retain a legal adviser, who may or may not be a stockholder and director. He passes upon all legal questions that arise affecting business paper, transfer of stock, the management of real estate, the validity of contracts and documents and similar matters. The larger banks and trust companies also have an auditor, who supervises the accounts, vouchers and records.

Having traced the more important duties of the officers of a bank, we may now proceed to describe the duties of the clerks and employees.

92. Paying teller.—Next in rank after the cashier is the paying teller who is the disbursing officer of the bank. He has immediate charge of the cash required for current business and is responsible for all out-going funds. The position, then, is one of great responsibility requiring a high order of ability and expertness in handling money and in judging people. The paying teller should be a man of irreproachable character and endowed with quick, sound judgment, patience and unwavering courtesy. Next to unflinching honesty the quality of unfailing courtesy is required of every bank employee whose duties bring him

into contact with the public. The customer seldom sees the officers of the bank, and he is likely to judge the bank by the tellers and clerks whom he meets daily in making deposits and drawing cash.

Each morning before business opens the teller takes from the vaults, to which, perhaps, he alone has access, the amount of money that he expects to need during the day. If necessary he may draw additional money from the receiving teller during the day, giving the proper receipt for the same. His money drawer is divided into sections each containing notes of different denominations. For convenience in counting and handling the bills are tied up in packages of convenient amounts, a package of fives containing $250, a package of twenties $1,000, and so on. For large payments on pay-rolls or to banks these packages are not recounted, but for ordinary payments over the counter they must of course be broken. Coins, too, are made up into rolls of convenient amounts, which are broken up as required. Some banks use an ingenious machine, called the "automatic cashier," in which coins of the several denominations are so arranged that by pressing a key the required coin or amount appears. It is evident that the paying teller must be familiar with the different kinds of money and expert in handling it. A wrong amount paid out by mistake may mean serious loss to the bank.

The principal duty of the paying teller is paying out money on the checks of depositors. In doing so, he must have regard to at least three things: first, is the check genuine; second, is the drawer's account good for the amount; third, is the person presenting the check entitled to the money. The teller must be careful not to pay raised or forged checks, for when the money is paid out recovery is difficult and the bank rather than the depositor is usually responsible for the loss. The paying teller should be sufficiently familiar with the signatures of depositors to detect any forgery or irregularity. Obviously no teller can be sure of the signature of every one of the bank's

customers. To aid him he has access at all times to the signature book or card which every customer is asked to sign upon opening an account. Frequently checks are presented bearing several indorsements. If one of these indorsements be forged and the bank pays the check it is liable to the true owner. The holder of a check bearing a forged indorsement is not a rightful possessor even though he is innocent of the forgery. The bank, therefore, has no more right to pay him than to pay upon a forged signature. To guard against the raising of their checks many large firms now use a machine which perforates or cuts out of the check the amount in dollars for which it is drawn.

The paying teller keeps himself as familiar as possible with the accounts of all depositors, to avoid unnecessary overdrafts. Many customers have large balances at all times, and the teller soon gets to know these and honors their checks without hesitation. Even if a check is paid for an amount in excess of the balance, the teller knows that it will be made good at once. The checks of the depositor who has a small and fluctuating balance have to be watched more carefully; payment of overdrafts by such customers is always attended with risk.

The paying teller should be sure that the presenter of the check is the rightful person to receive the money. A depositor has the right to draw his checks either to some one's order or to bearer, and the bank must respect that right and at the same time protect the interests of the depositor. If a check is made payable to "bearer" or is indorsed in blank, the teller may safely pay the presenter unless there is reason to suspect that he is not a bona fide holder or owner. Though the bank cannot legally require the holder of a bearer check to indorse it, the custom is to require indorsement. The bank then has a voucher or receipt for the payment in case of dispute. Furthermore, since the bank is under legal responsibility to the depositor to pay out no funds on his account except to the proper payee or his order, it has the right to demand that a

stranger presenting a check shall be identified. Checks sometimes come to the bank through the mail or the clearing house without indorsement. Checks coming through the clearing house each day are examined by the paying teller or by the individual bookkeeper to check up signatures and indorsements and to be sure that there are sufficient funds to the credit of the drawers. If the funds are not sufficient the checks should be returned to the banks from which they came with the cause of non-payment noted on the check, thus, "not sufficient funds," "not suff." or "n. s. f." A better practice is not to mark the check but to use a printed slip, giving the proper term, which is pinned or pasted to the check. It is usual to consult the cashier before returning an overdraft check. It may be that the drawer is a very good customer, who has by mistake overdrawn his account, or whom the bank for some reason or another does not wish to embarrass. In such a case the bank may hold the check and notify the customer at once of the overdraft. Sometimes it happens that a check is presented which would overdraw the account as shown on the individual ledger, but which, because of a recent loan or deposit or collection that has not yet gone through the books, should not be refused. The bank is responsible for any loss that a depositor may suffer through its dishonor of his check when he has funds in the bank to meet it.

Frequently checks are presented not for payment but for certification or acceptance. Certification is made by writing across the face of the check or stamping the word "Accepted" or "Good when properly indorsed" with the date and name of the teller. The latter form of certification is used generally when the check is improperly indorsed, yet the presenter wants to have it accepted at once in order to make sure of final payment. With the certified check in his possession he is sure that the amount will be set aside to meet the check whenever presented, and he can take his time in securing the proper indorsement. Some banks will not certify checks at all, and most

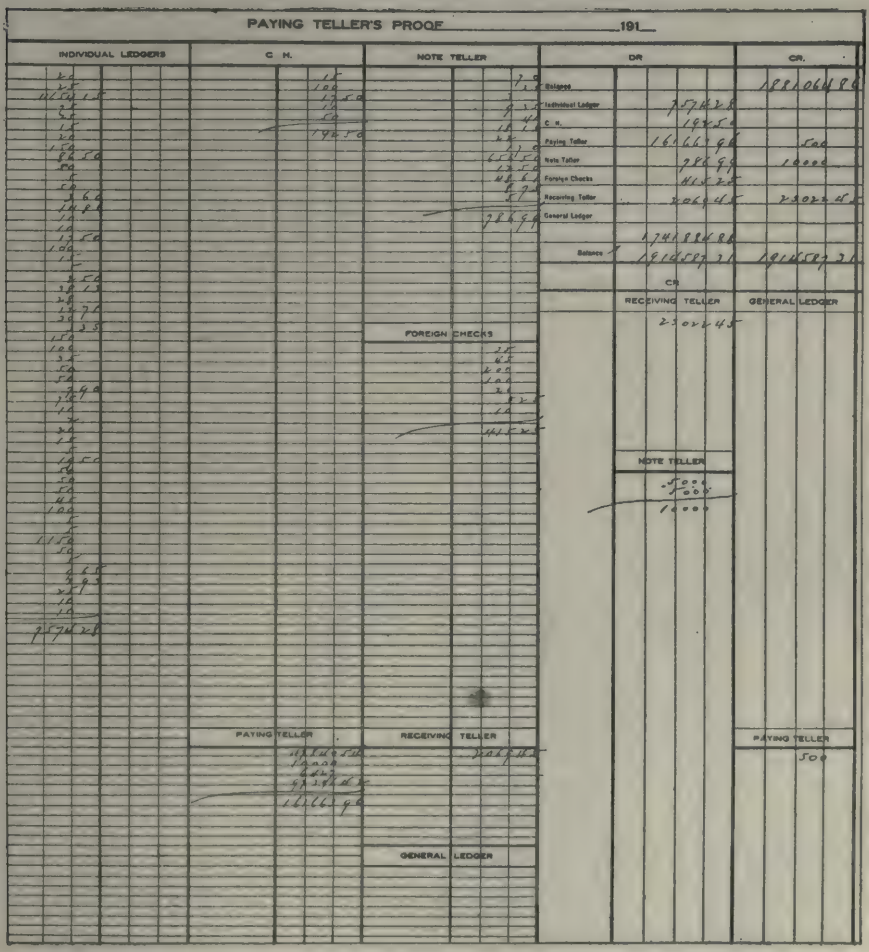
of them refuse to certify for small amounts, preferring to accept the check and issue for it a cashier's check, bank draft or due bill. This lessens the danger of forgeries or alterations, and relieves the bank of the necessity of holding the amount of the certified check as a kind of special fund reserved to meet it. A record must be kept of all certified or accepted checks for they are at once charged to the depositor. National banks are forbidden by law to certify checks for amounts exceeding the drawer's balance, but the law is not strictly enforced. Banks that practice over-certification do it because it pays. Depositors who ask for this favor are expected to keep a large balance in the bank which it can loan at a profit. The more conservative banks which permit over-certification protect themselves by requiring security in the form of stocks and bonds. This, of course, is only another form of a bank loan, and may be perfectly safe. Over-certification as practiced by the Wall Street banks will be discussed more fully under the heading of collateral loans.[1]

Sometimes the drawer of a check wants to stop payment on it, for some good reason. If he advises the bank not to pay that particular check it is bound to observe his direction. The paying teller, therefore, should always have before him a list of these stopped checks. The teller must also watch for post-dated checks, that is checks dated ahead, which should not be presented or paid prior to the date written on the check. It is permissible for the holder of a check to insert the date when by an oversight it has been omitted. The holder of a check should present it for payment within a reasonable time. The general rule is that a check drawn on a bank in the city where the payee lives must be presented for payment on the day of its receipt or the day following. Ordinarily a check is deposited the day it is received or the next day, and is presented to the drawee bank through the clearing house the following day, or if the drawee bank is in another city the depositor's bank sends it forward promptly for collection.

[1] Sections 132, 133.

Sometimes a "stale" check is presented bearing a date weeks or months past. If the drawer has funds in the bank it is a valid claim and must be paid. But since checks are usually presented promptly for payment the teller should satisfy himself as to the cause of the delay.

The paying teller must keep certain records or books. The amounts of all checks paid are entered on the check "scratcher." All paid checks should be cancelled by being stamped or punched with the date of payment. Each day after banking hours the teller makes up the "teller's



PAYING TELLER'S PROOF

proof'' testing the correctness of his work. His records show the amount of cash with which he began in the morning. During the day he may have made payments upon cashier's orders or in cashing checks presented directly by other banks or in settlement of a ''debit balance'' due to the clearing house, in addition to cashing checks upon his own bank. On the other hand he may have received cash by transfers from the receiving teller or there may be a ''credit balance'' from the clearing house to be added to his cash. The balance of these receipts and payments must ''prove,'' that is, correspond with his cash. Some banks keep a ''Teller's Settlement Book'' showing the cash balance at the beginning of the day, the various amounts received from different sources, the sums paid out on checks, etc., and the balance on hand. This cash balance is itemized to show the different kinds of money and the amount of each. If the teller's proof does not balance to the cent the difference is entered as ''over'' or ''short.'' Finally the teller makes up a slip or schedule on which he enters all the cash of various kinds—gold coin, gold certificates, ''legals,'' national bank notes; with the amounts of each and the total.

In smaller banks one teller may be able to perform the duties of both payer and receiver, but in some of the larger banks several paying tellers are required to handle the business, and the receiving tellers and other department clerks may need similar assistance.

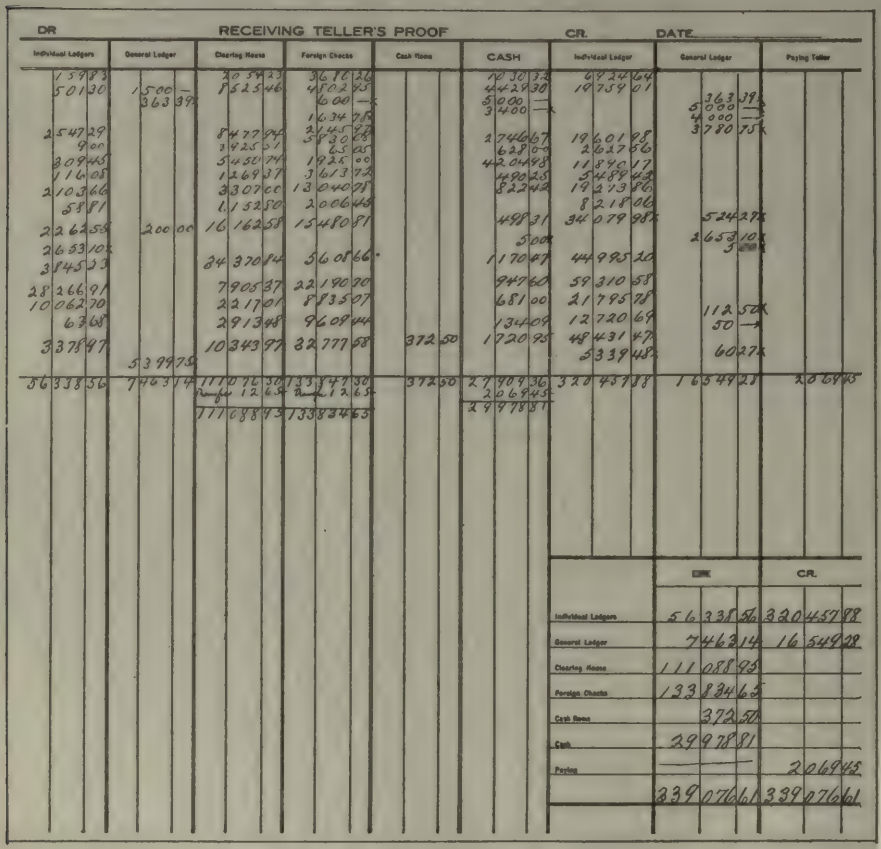
93. Receiving teller and deposits.—The receiving teller ranks next in importance after the paying teller; in reality he is the first assistant to the paying teller. In small banks where the business does not justify a separate note teller and collection clerk, the receiving teller takes in and accounts for all the funds which come into the bank; in the large city bank his main duty is to receive the deposits that come in directly over the counter. His position is one requiring care, accuracy and courtesy since customers are likely to judge the bank by his manner of treating them. Every deposit should be accompanied by a

deposit slip or ticket showing the amount of coin, notes, checks and other documents representing money. The receiving teller should verify each item and the total and make sure that all checks, drafts and other negotiable papers are properly dated and indorsed by the depositor before entering the amount of the deposit in the customer's pass book. In some banks the receiving teller writes his initial on both the deposit slip and the pass book for future identification. The receiving teller should be thoroughly familiar with all forms of money and always alert to detect counterfeits. Generally the money received is counted at once to make sure that it tallies with the deposit slip, before the entry is made in the pass book. In cases where the deposit includes a great many small bills, and the teller is pressed for time, he may pass a band about the bills, temporarily accepting the depositor's count as correct, and count them later when he has more time. This is open to the objection that if his later count does not agree with the amount stated on the deposit slip an unpleasant dispute may arise between the bank and the depositor.

The deposit tickets are filed on spindles and after the amounts are entered on the deposit scratcher they are sent to the bookkeeper's desk to be entered in the proper accounts. The receiving teller's "cage" should be supplied with convenient racks for stacking the bills and with trays for coins. At the close of the day the coins, after being counted, are put in bags or wrapped in paper rolls in convenient amounts, and the bills of like denominations are strapped in bundles. After proving his cash, the receiving teller turns it over with a statement to the paying teller, taking a receipt for it.

The checks received are assorted according as they are drawn on other banks in the same town, on the teller's own bank, or on out-of-town banks. After the proper records are made the checks are sent to the clearing house desk, to the individual bookkeeper's desk, or to the foreign or collection desk. In addition to the deposit book in

which is recorded each day's deposits, the receiving teller keeps a proof book. This book contains on one side the receipts from all sources—deposits, money received by express, or turned over by the first or third teller; on the other side are recorded the amount of clearing house ex-



Receiving Teller's Proof

changes, checks on his own bank, foreign items, city collections, charges to other tellers and cash in hand. Of course the two sides of the proof book must balance.

94. Note teller.—The note teller, sometimes called the "third teller," has important relations with the receiving teller's department, with the department of collections, and with that of discounts and loans. He shares with the

receiving teller the duty of receiving and accounting for certain of the bank's funds. As we have already seen, some of the deposit items received by the second teller are turned over to the note teller for collection. Usually there are in the larger cities some banks or trust companies that are not members of the clearing house. Checks or sight drafts drawn upon these institutions must be collected by messengers of the bank receiving them. Usually payments may be made either in cash or in checks payable to the collecting bank drawn upon some bank that is a member of the clearing house. The proceeds of these city collections come into the hands of the note teller. He also receives through the correspondence department, money and checks from out-of-town collections, and, as his title implies, he receives all payments upon notes discounted or purchased by the bank or deposited by customers for collection.

The collection clerk has charge of such time items as notes and time drafts which are not yet due and which must be held for maturity. When the time comes for collection, however, he turns over to the note teller the items payable in the city, while out-of-town items are turned over to the corresponding clerk. The corresponding clerk sends these items by mail to their proper destination, and where there is no mail teller he receives the remittances which come in from these collections and turns them over to the note teller. Some banks have a mail teller who receives and accounts for these remittances. The larger city banks have a separate coupon clerk who attends to the collection of interest on bonds or of interest coupons. Some of them may be collected by the note teller's messengers and some through the corresponding department, but the receipts pass into the hands of the note teller.

At the close of each day's work the note teller makes up a record of his receipts and prepares a "proof." His cash is turned over to the paying teller, and his checks are sorted and listed on slips to be added to the receiving teller's clearing house "exchange." Many such checks

may come in the early morning mail and in the city banks it requires a large force of clerks to get these remittances ready for the clearing house.[1]

95. Discount clerk.—The chief duty of the discount clerk is to take charge of the loans and discounts of the bank after they have been negotiated by the proper officers. He keeps a record of the promissory notes and acceptances offered for discount in an Offering Book, and also of the disposition made of them. He records all notes discounted in a "discount register," with the makers' names, and those of the indorsers, if any, the place of payment, the due date, the rate of discount and the amount of the loan. In many banks the offering book and the discount register are combined. The discount clerk also keeps a "tickler," a memorandum book divided into days of the month, in which the notes are recorded under their proper due dates. Great care should be taken in calculating the due date as a mistake of a single day may cause serious loss to the bank. The notes discounted are carefully filed in large wallets arranged in the order of due dates. When the day of payment arrives the notes are turned over to the note teller for collection with a proper exchange of memoranda. The discount clerk also has charge of all securities held to secure collateral loans unless the business is so large as to require a collateral loan clerk.

Collateral loans, that is, loans made upon the security of collateral, such as stocks, bonds, or warehouse receipts, constitute a large item in the business of some city banks, especially those having dealings with stock brokers.[2] This type of loan requires daily and hourly watching, especially in times of active speculation. Notes given for collateral loans are generally single-name paper, and the bank's only actual security lies in the collateral. The value of the securities deposited may shift rapidly in an active stock market and the collateral clerk must see that the proper margin of security required by the bank is maintained.

[1] See Chapter XIV.
[2] See Chapter XVI.

The collaterals are constantly being withdrawn and others substituted, and these must be carefully scrutinized, assigned, receipted for, recorded and filed. In banks having a large business of this nature, the position of collateral clerk is a very responsible one.

96. Bookkeeping of the bank.—Having described the principal departments of the bank's work, and having noted briefly the systems of record in each, we may now pass to a brief description of the general bookkeeping department, where the records of the various departments are gathered together and recorded.

The individual ledger is the principal book of record for this department. In it are kept the accounts with the bank's depositors showing the deposits, loans and collections on the one hand, and on the other the withdrawals by check. The individual or deposit ledger usually comprises several volumes in which the names of depositors are arranged alphabetically; volume one may contain the names of depositors from A to E, the next volume F to K, and so on. By this arrangement several bookkeepers can be kept at work at the same time.

The bulk of the credit items come, of course, from the receiving teller's department. After carefully listing on his scratcher the totals of the deposit tickets or slips presented by customers with their deposits during the day, the receiving teller sends the slips to the bookkeeping department where, frequently, they are entered on another scratcher and then posted to the individual ledger. A comparison of the daily proof sheet and scratcher total of the receiving teller with the scratcher total of the bookkeeping department serves as an additional check in the work of bookkeeping.

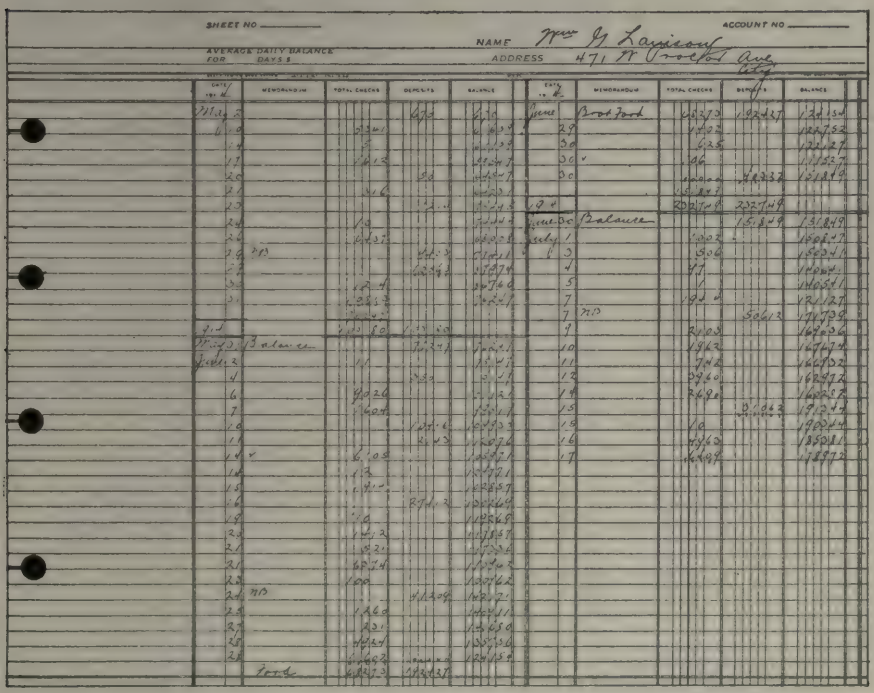
Other items credited to the account of the depositor arise from the discounting of his notes and drafts. Credit slips covering such transactions are sent to the bookkeeping department by the discount clerk and the amounts are credited to the customer's account in the same way as in the case of items received from the receiving teller. The

proceeds of notes and drafts left by the customer for collection are treated in like manner. Some of the large banks, having many out-of-town customers, keep a separate ledger called the "foreign individual ledger" for these accounts. The debit items in the individual ledgers come from the paying teller's department in the form of checks. Where many checks against a customer's account are received throughout the day, they are usually listed on an adding machine as received by the bookkeeper from the paying teller and posted in the scratcher, from which the totals are carried to the individual ledger accounts.

There are two types of individual ledger in common use: the three-column or Cincinnati ledger and the Boston ledger. In the three-column ledger, the depositor's name is entered at the top of the page, which is divided into two sections, each having headings for the date, debit entries, credit entries and balance. The Boston ledger is arranged to show on a single page the postings for six days. The dates are entered at the top of the page, and the names of the depositors are placed, usually, in a middle section with space for three days' work to the left and to the right. The space for each day is ruled for checks, deposits and balance. The Boston ledger is advantageous where most of the accounts are active, that is, having frequent debit and credit entries, but it is wasteful of time and space in the case of accounts more or less inactive for balances must be extended daily irrespective of any change in the account. In the three-column ledger each account has a sheet of its own and need not be disturbed until a change occurs. Another advantage of the Boston ledger lies in the fact that the scratcher can be dispensed with by adding the items in the "Deposits" column and the column headed "Checks."

The other general books of the bank besides the deposit ledger are the cash book or journal and the general ledger. The size and needs of the bank will determine the particular form of cash book used. In the small bank an ordinary cash book with debit and credit sides may suffice.

The large bank may find it necessary to use two books, a credit journal and a debit journal. The debit items come from the following main sources: individual deposits credited from the receiving teller's department and from the discount register; interest and discount on notes discounted; bills discounted, collected by the note teller; va-



THREE-COLUMN LEDGER

rious banks, for remittances received and for collections made by our bank but not remitted; and collections and exchange on the foregoing collections. The credit entries are for individual deposits, debited from the paying teller; bills discounted as reported from the discount clerk; various banks for cash remittances sent to them and for collections made by them but not remitted; collection and exchange, representing deductions made by our correspondents for collecting items; and general expenses of the

bank including salaries of employees, rent, supplies, advertising, etc.[1]

The general ledger contains a condensed record of the business of the bank from day to day. It is kept by the general bookkeeper in such a way as to show each morning a summary of the previous day's transactions. From it can be drawn at any time a complete statement of the bank's condition showing the total resources and liabilities and their relations to each other. Thus the general ledger will carry such accounts as those relating to capital, surplus, undivided profits, individual deposits, bank deposits, United States Government deposits, cashier's checks, certified checks, circulation, interest and dividends on securities owned. Accounts on the other side of the ledger will include bills discounted, demand loans, time loans, cash, real estate, United States bonds, bonds and securities. The general ledger deals mainly, then, with aggregates which are derived from original entries in the various departments and here summarized in total debits, credits and balances. The profit and loss account, into which is gathered the final balances showing gains and losses from different sources, is usually closed only at the end of the year, half-year or quarter, but it is so kept as to admit of a statement of profit and loss at any time.

Some banks keep a "general balance ledger" which summarizes the aggregate debits, credits and balances of the various accounts in the general ledger. Generally this ledger is kept by some clerk other than the general bookkeeper and so serves as a check and a "proof" upon the latter's work. Again, some banks keep a daily statement book in which aggregate resources and liabilities are still further summarized, thus enabling the officers to see the condition of the various accounts which may serve as a guide in making loans and in other important transactions. This book furnishes the material for making up the periodic reports of condition required by the Comptroller of

[1] Moxey: Practical Banking, p. 290.

the Currency, the state bank commissioner or the clearing house.

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CHAPTER XIII

DEPOSITS AND DEPOSITORS

97. Kinds and sources of deposits.—As previously stated the main function of the commercial bank is the buying of deposits and the selling of credit in the form of loans. Making loans through the purchase or discount of commercial paper is the chief business of the bank and the one that makes money for its owners, but the bank's loanable funds come mainly, not from its own capital, but from funds deposited by its customers. These funds also supply the basis for deposit currency with which the great bulk of our business exchanges and transactions are carried on.

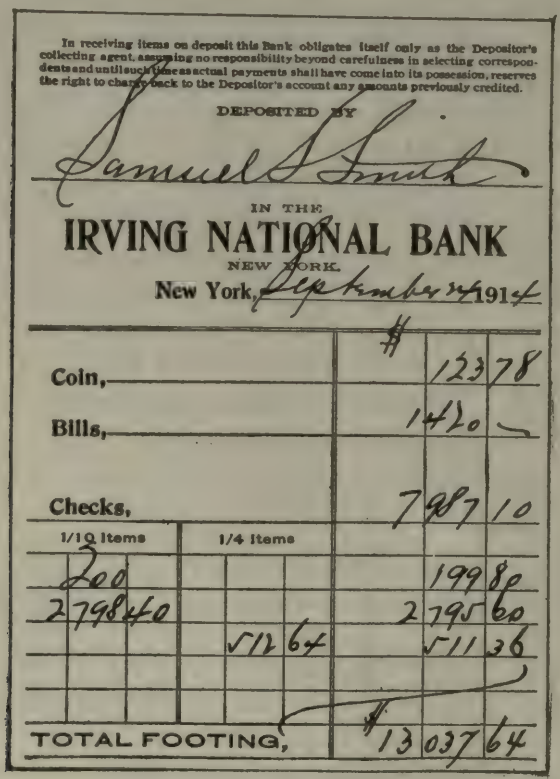
Bank deposits are of two general kinds—special and general. Special deposits consist of money, bonds, jewels, anything of value left with the bank for safe-keeping. General deposits consist of money or the right to receive money. Legally the relation created between the bank and the customer by a general deposit is that of debtor and creditor. The bank in accepting the deposit contracts to pay the debt or any part of it on demand, or in the case of a time deposit on or after a stipulated time. On the other hand the title to a special deposit does not pass to the bank, but remains in the depositor. It has been held that a bank is bound to exercise only reasonable care in protecting a special deposit, the same care as in protecting its own securities; but greater care must be exercised if it accepts a consideration for keeping such deposits.

Many banks now provide safe deposit vaults in which boxes are rented to customers for the safe-keeping of securities, wills, deeds, jewels and other valuables. Not only is this a direct source of profit to the bank, but it also brings customers into touch with the bank and its officers and thus leads them to open savings and commercial accounts with these departments of the bank.

The general deposits of a bank come from various and varied sources. In these days every business man keeps an account at a bank. It provides credit facilities which he cannot do without. He deposits the cash received from day to day: "cash items," that is, checks, drafts and bills of exchange which the bank collects for him; and he sells to the bank promissory notes and acceptances, received in the course of business transactions and usually discounted and deposited to his credit. Deposits flow in from corporations of all kinds in the same way. Many persons who are not engaged in active business keep "accounts" at the bank. More and more, too, people of smaller means are finding it advantageous to deposit their salaries, wages, or other income and check upon their deposits in payment of their bills. Banks in the larger financial centers, especially in New York, get a large volume of deposits from banks in smaller cities. These "country" banks keep "accounts" in New York for two reasons: first, in order that they may meet the demands of their customers for bank drafts or "exchange;" second, because they cannot always lend their funds at home and the banks of the large centers pay them a small rate of interest. The banks of New York especially can afford to pay interest on "bankers' balances" as they can lend these funds on call to brokers and others engaged in stock transactions. Finally, many national banks receive deposits, temporary or permanent, from the United States Government. Banks receive deposits also from other public sources—state governments, municipalities and school districts.

Because a bank's loaning capacity, and consequently its earning power, depends largely upon its deposits, it is al-

ways striving for more customers and larger deposits. In the better type of bank, however, close attention is given to the character of its customers and the probability of profit from their accounts. Usually a person wishing to open a general deposit account with a bank, unless he is personally known to the officers or is introduced and recommended by another customer of the bank, should present letters testifying to his character and financial reliability. In some banks, each new customer is required to fill out a blank giving his name and address, his business and its location, and the names of his sponsors. He writes his signature in one or more books kept for the purpose or on a signature card which is filed so that his signature upon checks, notes and other instruments that will be presented for payment may easily be verified.



In receiving items on deposit this Bank obligates itself only as the Depositor's collecting agent, assuming no responsibility beyond carefulness in selecting correspondents and until such time as actual payments shall have come into its possession, reserves the right to charge back to the Depositor's account any amounts previously credited.

DEPOSITED BY

Samuel A. Smith

IN THE

IRVING NATIONAL BANK

NEW YORK.

New York, September 24 1914

			#		
Coin,				123	78
Bills,				1420	—
Checks,				7987	10
1/10 Items		1/4 Items			
200				19	98
279840				2795	60
		√1264		√11	36
TOTAL FOOTING,			#	13037	64

DEPOSIT TICKET

98. Deposit ticket and pass book.—The customer in making his deposit fills out a blank deposit ticket or slip furnished by the bank with the date and his name at the top. He enters separately the different kinds of funds he wishes to deposit—cash, each check or draft with the name of the bank on which drawn, money orders, interest coupons, etc., and foots up the total. The deposit slip, the deposit items and the customer's pass book, which is given to him at the time he opens his account, are handed in at the receiving teller's window. The teller counts the money, examines the checks, being careful to see that they are properly dated and indorsed, verifies the slip, and enters the total in the pass book, which is then returned to the customer. It should be explained, perhaps, that the pass book contains the bank's account with the customer, not his account with the bank, so that the sums deposited by him are entered on the debit side of his pass book as they are debits of the bank.

Formerly it was the common practice for depositors to leave their pass books at the bank from time to time to be balanced. Many banks have abandoned this practice, however, sending instead a monthly or periodic statement of the depositor's account. Where the former method is used the bank credits itself on the page opposite the deposits with all payments that have been made on the customer's checks and all charges to his account. Formerly, in writing up and balancing the pass book each check item was entered separately in the pass book. In this day of labor-saving devices the checks or vouchers are listed and added on the adding machine and only the total is entered, with a statement of the number of checks involved. The balance is then struck and the amount to the credit of the depositor is entered on the debit side of his pass book. The slip showing the separate check items and the total is returned with the pass book and the cancelled checks to the customer. The account thus balanced should be compared with the customer's own check book record and mistakes or discrepancies adjusted at once. Frequently a dis-

crepancy does exist owing to the fact that checks drawn by the customer and mailed to creditors have not yet been returned to the bank. The cancelled checks should be carefully filed for future reference. A dispute may arise over the payment of some bill or obligation, and the cancelled check may be useful as a receipt showing that the disputed bill has been paid.

99. Interest on deposits.—As a general rule banks do not pay interest on general or demand deposits. Many trust companies, and in recent years commercial banks also, do allow a low rate of interest on daily balances where the average is above a certain minimum. Not a little controversy has arisen regarding the paying of interest on general deposits. The arguments for and against the practice may be briefly summarized.[1]

In favor of paying interest it is urged that the bank should share with the depositor the profits earned on his deposit. Since the deposits constitute the principal source of the bank's loanable funds and consequently profit, it is contended that the bank should share with the depositors a portion of the profits. Trust companies and private banks pay interest on deposits; commercial banks must do likewise in order to get and hold them. Because the trust companies have for years paid interest on deposits, many of their accounts being inactive, many people have the habit of dividing their bank accounts, banking the most of their funds with a trust company, and keeping with the commercial bank only such balances as are necessary for their daily business needs. To meet this competition of trust companies for deposits, commercial banks more and more find it necessary to pay interest. Again it is urged that since banks demand interest on their deposits kept in other banks, the customer should likewise receive interest for it is his deposits, or a portion of them, that the bank deposits with the correspondent bank.

Against paying interest on deposits it is claimed that if banks engage to pay interest they will take greater risks

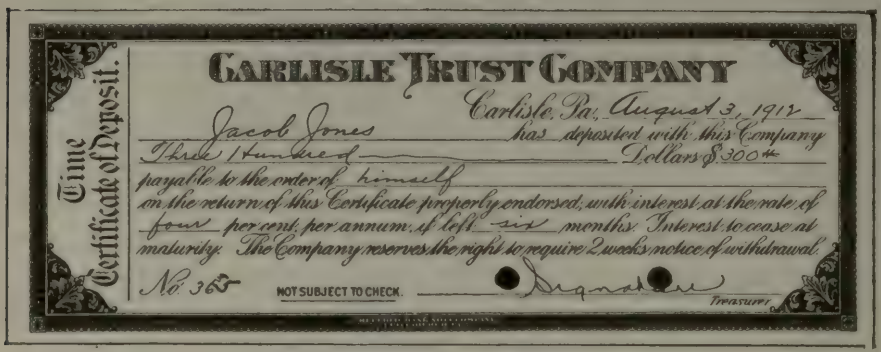
[1] Bolles: Money, Banking and Finance, p. 69.

in lending them in order to earn the interest that must be paid to the depositor. It is further urged that if banks have to pay interest they will not do as much to accommodate depositors in lending them money. As noted elsewhere banks perform many business and financial services for their customers. Not the least of these is accommodating them with loans, so far as their average deposit, financial credit and the securities or collateral offered may warrant. When money is scarce and interest rates advance, banks often continue to lend to large depositors, who are also large borrowers, at the old rates because they keep large balances. If depositors demand interest on their balances, the bank would seem justified in charging the highest rate of interest when they apply for loans or renewals. The growing practice among business houses of selling their notes through bill brokers, thus lessening somewhat their dependence upon the banks for loan accommodations, may have strengthened the tendency to require the payment of interest on deposits.

Quite generally banks pay interest on public deposits, that is deposits of public funds made by the financial departments of states, cities, counties and school boards. Not infrequently such deposits, or a portion of them, are left undisturbed for considerable periods or are drawn upon only at regular intervals. A bank can, therefore, lend them to good advantage and so can afford to pay interest. Furthermore, banks are not called upon to make loans and extend other favors to municipalities and governments as in the case of the ordinary depositor.

A form of special deposit upon which banks generally pay interest is represented by the certificate of deposit. This instrument certifies that a specified sum of money has been deposited and will be paid to the order of the depositor. It is in effect a check by a bank on itself, and being made payable to the depositor's order may be indorsed by him and so pass from hand to hand like an ordinary check. A certificate may be payable on demand or at the end of a specified period. Demand certificates

are sometimes used to transmit money in the same way as bank drafts and certified checks. The depositor is sometimes requested to write his name on the margin of the



Time Certificate of Deposit.

CARLISLE TRUST COMPANY

Carlisle, Pa., August 3, 1912

Jacob Jones has deposited with this Company

Three Hundred Dollars $300.00

payable to the order of himself

on the return of this Certificate properly endorsed, with interest at the rate of four per cent. per annum, if left six months. Interest to cease at maturity. The Company reserves the right to require 2 weeks notice of withdrawal.

No. 365 NOT SUBJECT TO CHECK. Signature Treasurer

CERTIFICATE OF DEPOSIT

certificate so that when it is presented for payment, the indorsement, if it has been transferred, can be compared with his signature.

100. Securing deposits.—For reasons that have been stated elsewhere, every bank constantly strives to increase its deposits and thereby to enlarge its loaning capacity. Various methods are employed to obtain and increase deposit accounts. Mention has been made of the growing practice of paying interest on deposits. Not the least valuable service rendered to the depositor is the collection of his checks, drafts and other items of credit. Again, banks are naturally disposed to lend to depositors on more advantageous terms than to casual customers; the latter will be required to furnish satisfactory collateral security while the former may, possibly, borrow on his personal credit. This preference in favor of the regular depositor is of the greatest importance when in times of "tight" money or panic all banks are refusing loans except to their own depositors.

In former times it would have been thought undignified for a first-class bank to solicit accounts or even to advertise in the papers and journals. Under the stress of keen

competition, however, even the most powerful and conservative banking institutions now use every honorable means of building up their business, and many of them employ representatives to solicit deposit accounts. By means of letters, booklets and advertisements calling attention to particular advantages and services of the bank, appeals are made for patronage. One bank may have developed a strong bond department, whose officers are always ready to advise with patrons as to the purchase or sale of stocks and bonds; another bank may emphasize its foreign business, the purchase and sale of foreign bills of exchange and the issue of letters of credit; still another may emphasize its superior facilities for handling promptly commercial drafts and documented bills.

Though banks generally are eager to secure new customers and to increase their total deposits they are giving increasing attention to the cost or profitableness of their accounts. Cost accounting holds just as essential a place in the banking business to-day as in a manufacturing plant. Some of the services which the modern bank under the stress of competition extends to its customers have already been noted and others will be stated more fully in connection with collections and loans. In general it may be said that a profitable account is one which yields in the form of interest on loanable funds more than the cost of carrying the account. Various methods have been devised to distribute to the depositors the expenses of running the business. These expenses when balanced against the average deposits provide a basis for determining the value of individual accounts.[1]

A bank may have a customer who deposits a very large number of small checks, the recording, handling and collecting of which involves more time, labor and expense than large deposits. In such case the customer may be required to keep a large balance in the bank to compensate

[1] For methods of determining the value of accounts, see Patten: Modern Banking Methods, p. 139; also, Moxey: Practical Banking, p. 143.

for the heavy expense involved in carrying the account. Some banks have a rule requiring depositors to keep an average deposit of at least $500 or $1,000 or even a larger amount. It may happen that a particular account is of itself unprofitable to the bank, yet it may be good business to carry it because of the influence that particular patron may have upon other depositors whose accounts are profitable. Accurate knowledge of the cost of active accounts is valuable to the bank as it furnishes an important guide in extending loan accommodations. Thus a customer whose balance is always large and who draws or deposits comparatively few checks may properly expect to borrow funds from the bank on more favorable terms than the firm which keeps a small or fluctuating balance and deposits a multitude of checks, drafts and other items for collection.

101. Guaranty of bank deposits.—Within the past few years laws providing for the guaranty or insurance of bank deposits have been enacted in several of the Western states. Oklahoma adopted a guaranty law in 1907 levying an assessment of 1 per cent of its average deposits on each bank in the system to provide a fund for the payment of deposits of all banks that might fail. Provision was made for a special assessment in case the guaranty fund became exhausted by the payment of claims against failed banks. The law was intended to include all banks in the state, but the Comptroller of the Currency ruled that national banks could not participate in the scheme. As a result state banks increased greatly both in numbers and in deposits while national banks practically stood still.

The original act provided for the absolute guarantee of all bank deposits, but in 1909 it was amended to make the system one of insurance rather than guaranty. The new law provided for an annual assessment upon all state banks of one-fourth of 1 per cent of their deposits until a fund equal to 5 per cent of the total deposits was accumulated. Emergency assessments could not exceed 2 per cent of a bank's deposits in any one year. The amended law also limited the amount of a bank's deposits to ten times the

capital and surplus, exclusive of deposits of other banks. Seventy-five per cent of the fund was to be invested in state warrants or other securities which are legal investments for state funds. Depositors of a failed bank were to be paid in full immediately after the closing of the bank. If the guaranty fund were not sufficient to meet all such demands, depositors were to receive 6 per cent certificates of indebtedness for the balance of their claims which were to be paid later from the proceeds of liquidation or from subsequent assessments on the other banks.

The guaranty system was subjected to a very severe test in September, 1909, when the Columbia Bank and Trust Company, a state bank having the largest deposits in Oklahoma, including the guaranty fund itself, failed bringing embarrassment to many other banks. There was no panic, however, and no run on the bank. The guaranty fund was not nearly sufficient to meet the bank's liabilities, and after the emergency assessment was levied a large shortage still remained. The policy of paying small depositors first was adopted, and within two months all individual depositors had been satisfied either with cash or certificates of deposit secured by gilt-edge paper.

The guaranty law was changed in several particulars by amendments made in 1911 and 1913. In 1911 trust companies were excluded from the benefits of the act and provision was made for the deposit of the guaranty fund with the banks paying it, a special certificate bearing interest at 4 per cent being issued therefor to the Bank Commissioner. The amendments of 1913 provide that the regular assessment of $\frac{1}{5}$ of 1 per cent of deposits shall not be exceeded except for the years 1914—1916 when the assessments may reach $\frac{2}{5}$ of 1 per cent, but the assessments are not collected until needed. The permanent guaranty fund to be accumulated is reduced from 5 per cent to 2 per cent.

After the adoption of the guaranty law a great many national banks surrendered their charters and took out state charters. Later when all banks were heavily assessed to build up the guaranty fund a considerable proportion of

these banks returned to the national system. Since the establishment of the system twenty-seven banks have failed or have been liquidated with the aid of the guaranty fund; in the same period only three national banks failed. The friends of the guarantee system claim that the increased business of state banks has compensated them for the heavy losses they have sustained.[1]

Several other Western states, including Texas, Kansas, Nebraska and South Dakota have adopted guaranty laws. The system is compulsory upon all state banks in Nebraska, voluntary in Kansas and South Dakota, while in Texas banks may either enter the state system of guaranty or supply depositors with some other suitable form of guaranty. In three of these states the courts have upheld the constitutionality of the guaranty laws. In Texas nearly all state banks have joined the system and it seems to work well. The same may be said of Nebraska. The South Dakota law is voluntary and no banks have organized under it. In Kansas where the law is voluntary about one-half the state banks have organized under the state guaranty system. In opposition to this system the national banks of Kansas organized a corporation in 1909 to insure their depositors. In April, 1913, this company included 79 national banks and 24 state banks whose deposits it insured. In general it may be said that while state banks have increased both in numbers and in deposits under guaranty laws, the deposits of national banks have increased fully as much as those of state banks.

The principal arguments urged in favor of deposit insurance may be briefly summarized as follows: first, it prevents the individual distress that always attends a bank failure; second, it prevents financial panics by assuring depositors of the safety of their funds, and lessens the tendency to withdrawals in a time of financial stringency; third, it increases the volume of deposits, drawing in funds which otherwise would be hoarded by people afraid to

[1] Shibley: History of Guaranty of Bank Deposits, p. 5.

trust the banks.[1] On the other hand, the opponents of deposit insurance contend that it is unjust to ask the strong, well-managed banks to guarantee the depositors of badly-managed banks against loss, and that such a system would encourage loose and careless banking methods. This objection, however, seems not to be sustained by the experience of Kansas, Nebraska and Texas.[2] If depositors in all banks are protected equally, irrespective of management, the chief inducement would be liberality in loans or in interest rates and great waste would result. To prevent reckless overbidding for deposits the guaranty laws of Kansas and Oklahoma provide that the banking commissioner may fix the maximum rate of interest on deposits. One of the chief difficulties of a state system of deposit insurance is the very heavy burden that may have to be borne by the banks when a single large failure occurs, especially when such a failure comes before a considerable guaranty fund has been accumulated. This difficulty would be greatly reduced in a system of national insurance embracing many thousands of banks. Mr. Thornton Cooke, who has made a most thorough study of deposit insurance, expresses the opinion that insurance by private corporations is not the solution of the problem, "if the problem is found to be worth the solving. While such corporations could select risks and limit their size and distribution, it is obvious, nevertheless that if deposits are to be guaranteed or insured on any considerable scale, it will be through the banking departments of the states or, conceivably, of the United States."[3]

Despite the acknowledged success of the guaranty system in a few Western states the plan does not spread. When the Glass-Owen bill to establish the new Federal

[1] Thornton Cooke: *Quarterly Journal of Economics*, Vol. XXIV, p. 85 *et seq.;* also p. 327 *et seq.*—Printed as Appendix B in State Banks and Trust Companies (Nat. Mon. Comm.).

[2] Ibid., Four Years More of Deposit Guaranty, *Quarterly Journal of Economics*, Vol. XXVIII, pp. 69-114.

[3] *Quarterly Journal of Economics*, Vol. XXVIII, p. 110 (Nov., 1913).

reserve system was before Congress the question of the guaranty of deposits was discussed, and as the bill first passed the House it provided that a portion of the earnings of Federal reserve banks should be employed to establish a fund for guaranteeing the deposits of member banks. This provision was not favored by the Senate, and as finally passed the law made no provision for guaranty of deposits. If the new system proves effective in mobilizing reserves and in preventing the recurrence of banking panics, and if it proves advantageous for state banks to enter the system freely, the guaranty of bank deposits is not likely to have a wide expansion in the near future.

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White: Money and Banking, Appendix C.

CHAPTER XIV

THE CLEARING HOUSE

102. Functions.—A clearing house may be defined as a device to simplify and facilitate the daily exchange of checks and drafts and the settlement of balances among the banks associated together for the purpose. In recent years clearing houses have tended to expand this primary function so as to provide "a medium for united action upon all questions affecting their mutual welfare." As a device for economizing time and labor the clearing house is one of the most important aids in the banking system.

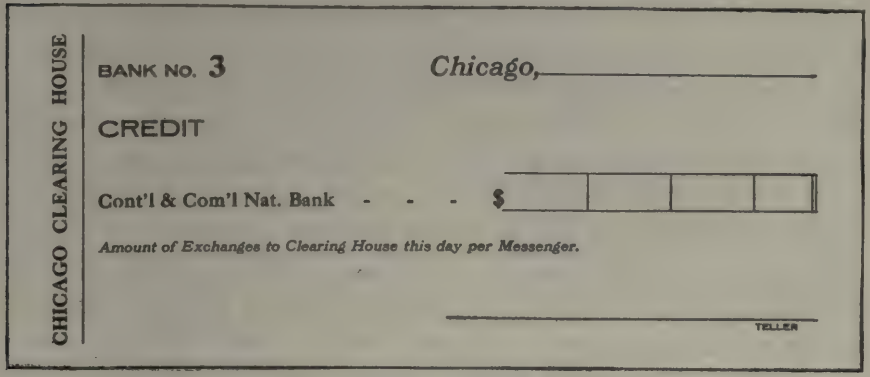
A check, as we have seen, is an order upon the depositor's bank to pay a certain sum of money from his account either to himself or to some other person. In an active business house many such checks or orders are issued every day in payment of bills or other obligations, and in turn many checks are received from debtors living in the same city or in other places. Checks so received must be presented for payment to the various banks on which they are drawn. Now the merchant has neither the time nor the facilities for collecting these checks; moreover, the expense involved would be considerable. He therefore turns these orders over to his bank which undertakes to collect them from the several banks on which they are drawn. In this way every bank is constantly receiving checks, some drawn upon itself, some drawn upon other banks in the city, and some upon out-of-town banks. Checks upon itself are paid in cash over the counter, or are credited to the

account of the depositor and charged to the drawer's account. The method of handling checks upon out-of-town banks will be explained later.

To simplify the process of collecting checks which each bank receives drawn upon other banks in the same city, the clearing house was devised. In the absence of some clearing house arrangement, each bank would have to present for payment to every other bank in the city the checks which its customers deposit and receive the money in payment. This would involve a great waste of time, much inconvenience, and some risk of losing the money. In all cities having several banks, and even in the smaller towns with but few banks, the daily exchange of checks and the settlement of balances between banks is now made through the clearing house. Where no clearing house arrangement exists and in those cases where for some reason a bank is not a member of the clearing house association, all city collections must be made by messenger or runner.

103. Clearing.—Before describing the process of clearing checks, mention should be made of the preparations at the bank. During the day as checks are received, those drawn upon city banks are placed in pockets or pigeon-holes marked with the clearing house number of the several banks. At the close of business each day these checks are entered or listed on a "settlement sheet." Items received in the early mail the following morning are added to this sheet and the totals are entered as debit items on the settling clerk's statement which he takes to the clearing house. The checks are put up in envelopes for the respective banks on which they are drawn and these are arranged in consecutive order corresponding to the clearing house numbers of the banks. A "delivery sheet" is prepared on which each of these envelope totals is entered opposite the name of the bank on which the checks are drawn. This sheet also has a column for the amount of checks presented for settlement and a space for the signature of the settling clerk of each bank. The footing of the settlement sheet showing the total amounts of the checks

against each bank is entered on a "credit ticket" which the settling clerk delivers to the clearing house manager.


CHICAGO CLEARING HOUSE
BANK NO. 3
Chicago,
CREDIT
Cont'l & Com'l Nat. Bank - - - $
Amount of Exchanges to Clearing House this day per Messenger.
TELLER

CREDIT TICKET

The settling clerk and the delivery clerk now proceed to the clearing house and take their places at the desk belonging to their bank, the settling clerk inside the inclosure, the delivery clerk outside. In the larger cities each of these clerks may have an assistant to facilitate the work. Generally the arrangement of desks is oval or circular to permit of easy passage from one desk to another. At the appointed hour the manager appears at his desk and rings a bell as a signal to begin. Instantly the line of delivery clerks outside the cage or oval begins to move. The clerk of bank No. 1 steps forward to the desk of No. 2, delivers the envelope marked No. 2, and places his delivery sheet in front of the settling clerk who receipts for it by writing in the proper place his initials or name. No. 1 clerk passes on to No. 3, and so continues the operation until he has delivered all his envelopes and reaches his own desk again. In the same way the other delivery clerks follow, delivering their packages and getting their sheets receipted. In some places it is the rule to deliver a blank ticket to any bank against which any other bank may not have collections on a particular day. This may simplify the correction of errors as it shows that no item has been lost or mislaid. The delivery clerk having completed his deliveries

is now free to return to his bank taking with him the envelopes containing the checks which have been presented against his bank by the other banks.

As soon as the deliveries have been completed each settling clerk enters on his settlement sheet the amounts of the checks presented by each of the other banks and ascertains the total. Where the volume of exchanges is large the settling clerk has an assistant, in which case the entries are made at once upon delivery of the envelopes and the settling clerk can begin his additions immediately upon receipt of the last envelope. The settling clerk already has upon his sheet the total of the checks brought by him to the clearing house. As soon as he determines the total amount of the checks brought by other banks against his bank, he strikes a balance. This balance is the actual amount to be "settled."

If this is a credit balance it will be paid over to his bank by the clearing house; if it is a debit balance his bank must pay it into the clearing house before a certain hour of the same day. Each settling clerk makes out a balance ticket, showing the amount brought to the clearing house, the amount received and the balance. These tickets go to the desk of the manager where the proof clerk enters all the debits, credits and balances of the several banks. His balance totals should correspond to those of the settling clerks, and the balance for each bank should correspond to that appearing upon its ticket; otherwise there is some error which must be found and corrected. The manager calls off the balances of the several banks for verification and for the information of the banks. If there is an error the clerks go over their sheets again to discover the mistake. In most clearing houses a certain time, thirty or forty-five minutes, is allowed for completing the proof, and, usually, fines are imposed upon the clerks responsible for error or delay.

104. Settlement.—The method of settling balances varies in different cities. The banks which have debit balances against them are required to send to the clearing house

before a certain hour, usually twelve or one o'clock, the amount due from it. These balances are generally paid in clearing house certificates, United States gold certificates, legal tender notes or gold coin.[1] Sometimes settlement is made by cashier's check. In most cities each member of the clearing house has on actual deposit in the vaults of the clearing house, or some bank agreed upon as depository, gold coin for which clearing house certificates are issued. These certificates save the actual handling of the gold but can be used only in settling balances between the banks. After the time specified for the payment of debit balances the creditor banks can receive from the clearing house the balances due them. The clearing house manager receipts for all debit balances paid in and in turn requires a receipt for each credit balance paid out. When the day's settlement is completed not a dollar remains in the clearing house as the money paid in by debtor banks is all paid out again to the creditor banks.

The principle of the clearing house and the method of making the exchanges is substantially the same everywhere, though slight differences in detail obtain in different cities. In small towns with only a few banks the process is very simple, the clearing house being merely a convenient meeting place for representatives of the several banks to exchange checks one against the other. In New York the Sub-Treasury has the privilege of clearing through the clearing house as an accommodation both to the banks and to itself. A peculiar system of settlement is used in the Boston Clearing House, and, in a modified form, in Pittsburgh and some other cities. At the close of the morning exchange in Boston representatives of the various banks borrow and lend balances and settle them by orders on the clearing house. Cannon says that sixty per cent of the total balances of the Boston Clearing House are now settled in this way. Thus bank A may find itself a heavy debtor to the clearing house while bank B has a large balance to its credit. A may then borrow from B which gives

[1] Cannon: Clearing Houses, pp. 36-42.

him an order on the clearing house and A turns in this order in the settlement of his balance later in the day. This, of course, amounts to a loan of money and rates of interest about equal to call money rates are charged.

The New York Clearing House, which was organized in 1853, is of course the largest and most important in the country. Its volume of exchanges for the year 1912 averaged over $325,000,000 a day, and yet the cash required to handle this enormous total averaged only about $18,000,000 a day, or a little over five per cent of the totals involved. The actual clearing in New York ordinarily takes less than a half hour's work. In other cities with a smaller volume of exchanges even less time is required.

105. Other functions.—In recent years clearing houses, especially in the West, have extended the scope of their original function so as to include all questions affecting the mutual welfare of banks. Some clearing house associations have rules providing for uniform action among their members in regard to rates of interest on deposits, rates of exchange and charges for collection. Quite generally these associations issue clearing house loan certificates in exchange for deposits of funds by the member banks. These certificates are drawn for large amounts usually and reduce to a minimum the carrying of actual cash to and from the clearing house. In times of panic or of financial stress when most or all banks have difficulty in securing funds to meet the demands made upon them, the clearing house associations often provide for additional issues of loan certificates based upon approved securities deposited by the banks. At such times a special loan committee is appointed to issue certificates and pass upon the securities which may include not only stocks and bonds but also bills receivable. In order to insure the withdrawal of these certificates when the emergency has passed, interest is charged upon them. They can be used only in the settlement of balances between banks, but by lessening the amount needed for this purpose they release so much currency for general circulation.

106. Organization.—The organization of the various clearing houses depends upon local conditions, but generally they are voluntary, unincorporated associations acting under rules and by-laws drawn up for their own regulation. The larger clearing houses elect annually a full set of officers, including a president, vice-president, secretary and treasurer, and a number of committees. The most important committee is the Clearing House Committee which has the general direction of the affairs of the association. The expenses involved in maintaining the associations are apportioned among the members according to the average amount of their clearings. The organization of the association in small towns is usually very simple, being confined sometimes to a mere working agreement among the banks concerned and involving little or no expense.

In most of the larger cities a number of banking institutions which are not members of the clearing house associations have their exchanges cleared through some member bank under prescribed conditions. Generally these non-member banks are required to pay a fixed annual fee, and to submit to examination by the clearing house committee. In view of the fact that the clearing house association is an organization for mutual support and that the weakness or financial distress of a single member may embarrass all, the associations in the larger cities have in recent years established a system of clearing house examinations under which all the member banks are periodically examined. The examiner is paid by the association and such examination is entirely separate and distinct from that made by state or national officials. Some bankers believe that these clearing house examinations will not be permitted under the terms of the following clause of the Federal Reserve Act: "No bank shall be subject to any visitatorial powers other than such as are provided by law, or vested in the courts of justice, or such as shall be or shall have been exercised or directed by Congress, or by either House thereof or by any committee of Congress or of either House duly authorized."

107. Collections.—Having described the method of collecting checks on city banks through the clearing house, or by direct collection in the case of those banks and bankers which do not have clearing house connections, it remains to account for "foreign" or out-of-town collections, that is, checks and drafts upon banks in other cities.

The practice of paying by check has become so extensive that banks are now required to make collections without regard to distance or trouble involved. Thus a merchant in New York may receive a check for a small amount due him drawn on a bank in a small town in Texas. After indorsing the check he sends it to his bank with other items for deposit, and gives himself no further concern about it. But the bank to get its pay must send the check to the bank on which it is drawn. In many cases checks are sent direct to the drawee bank, but more generally a different plan is followed. Most banks in the larger cities have an arrangement regarding collections and other matters with some bank, known as its "correspondent," in every other principal city. Thus it may be agreed that the New York bank shall send all its collections in the Southwest to its correspondent bank in Dallas, while the Dallas bank agrees to send all checks deposited with it drawn on banks in and around New York to the New York bank for collection. Under such an arrangement a statement of account between the two banks is interchanged periodically, once a week or once in two weeks, and the balance is remitted in cash, by New York draft, or otherwise as agreed upon. Such settlements may be made daily between correspondent banks in large cities.

It must not be understood that all out-of-town checks received by the bank are credited at once to the depositor's account; more frequently they are accepted for collection, in which case they are usually entered in a separate part of the depositor's pass book, or if there are many of these items, in a separate pass book designed for this purpose.

Out-of-town collection items are turned over to the corresponding clerk. He keeps a record of these with names,

dates, amounts, the names of the banks on which they are drawn, and the correspondents to which they are to be sent. Checks that are to be sent to regular correspondents are stamped with the bank's indorsement, "Pay to ——— Bank," or "Pay to any Bank or Banker." The stamp bears the name of the bank and its cashier, usually the date, and the guarantee "Prior indorsements guaranteed." The various items are charged to the several correspondent banks under the date they are sent out, in the collection or foreign ledger kept for this purpose. When the correspondent bank, say the Second National Bank of Dallas, Texas, receives these checks from the New York bank, it credits them to the account of the latter, sends a letter of acknowledgment, enters the several items in its own books, and makes the collections. It may be that some of them are drawn upon itself in which case they are charged to the account of the depositors who drew them. Others may be drawn against some other bank in Dallas; if it is a member of the local clearing house they will be collected by that means; otherwise they will be presented by runner for collection. Still other checks may be drawn upon banks in small towns near Dallas, and these after being indorsed by the Dallas bank will be forwarded for collection either direct or through the correspondent of the Dallas bank. In this way the collection of checks goes on until they are charged back to the accounts of the original drawers and remittances are made between the banks concerned.

The collection service of the bank embraces not only checks, but notes, drafts, money orders, interest coupons, etc. Such collection items as promissory notes and acceptances are treated somewhat differently from checks. Whenever possible, notes should be left with the collecting bank several days before maturity in order that they may be passed properly through the several books of the bank. All notes are carefully marked with the date of maturity. If a note should be marked one day too late and the drawer should fail to pay, the bank would be liable to the owner,

as the notice of protest to the indorsers would be too late to hold them. After being marked with the maturity date, notes are recorded in the "Collection Register," from which they are copied into "Tickers." The actual collection of notes and drafts payable in another place is made through correspondents in much the same way as checks.

Sometimes a foreign check upon reaching the bank on which it is drawn proves not to be good. It is then the duty of the collecting bank to have it "protested" by a notary public and to send notice to indorsers. The unpaid check, draft, or note is returned with the certificate of protest to the bank from which it came. The account of the depositor who drew the check is charged with its amount together with the protest charges. The purpose of the protest is to have official acknowledgment that the instrument has been presented for payment and dishonored. Though not absolutely necessary in the case of domestic transactions, the practice of protesting unpaid paper is generally followed as it holds indorsers after they have been served with notice of the protest. Depositors sometimes stamp their checks "No protest," or attach a "sticker" with the same words, before depositing them. This is notice to collecting banks not to protest the items if not paid upon presentation at the drawer's bank, as the depositor does not wish to incur the expense of protest.

108. Regional clearing houses.—As can readily be seen this collection service rendered to the depositor by the bank involves a great deal of labor and expense. Formerly the banks made collections for their customers without charge, and this is still the rule in some parts of the country. The tendency now, especially where there is a clearing house association, is to make a small charge, called "exchange," for collecting out-of-town checks, the exchange being charged up against the depositor for whom the collections are made. To many country banks this has been a large source of income. Under the rules of the New York Clearing House the country is divided into three zones, the collection charges upon all cities within each zone being uniform.

On cities near New York, known as discretionary points, each bank may use its own discretion as to charges, and in practice none are made. The rest of the country is divided roughly by the Mississippi river, a uniform rate of 1-10 of 1 per cent being charged on all points east of that line and ¼ of 1 per cent west of it.

Despite the economies and short-cuts devised by banks for collecting out-of-town checks, the system is wasteful in both time and money. From time to time proposals have been made to establish national or regional clearing houses to handle the collection and settlement of out-of-town checks in much the same way as city clearing houses now handle local checks. The Boston Clearing House has a branch known as the "foreign department" which makes collections for its members throughout New England. The clearing houses of Atlanta and Nashville have a somewhat similar arrangement for making collections for their member banks over a considerable area adjoining those cities. For several years the Kansas City clearing house association has had a country clearing house department embracing the states of Missouri, Kansas, Nebraska, Colorado, New Mexico, Oklahoma and Texas, and including over five thousand banks. This department has effected a saving of over fifty per cent in the expense of handling collection items in that territory and has reduced the time required to secure returns, by about twenty-five per cent. In addition to these benefits the country clearing house serves as a credit bureau.[1]

The Federal Reserve Act makes possible some far-reaching changes in clearing house and collection arrangements. It authorizes Federal reserve banks to receive checks and drafts on member banks and other Federal reserve banks, and requires every such bank to receive checks and drafts drawn upon any of its depositors at par. It follows, therefore, that a reserve bank cannot make any charge for collecting checks on any of its members. A charge may be made, however, to a member bank for the collection of

[1] *Chicago Banker*, July 19, 1913.

checks drawn against member banks in another district, such charge to be fixed by the Federal Reserve Board. The Act also provides that the Federal Reserve Board may exercise the functions of a clearing house for the several reserve banks, or may designate one of them to act as a clearing house for the others; and may require each reserve bank to act as a clearing house for the others, and also for its members. If each reserve bank acts as a clearing house for all member banks of the city where it is located, the existing clearing houses in those cities may no longer be needed, though the problem of clearing checks presented by non-member banks would still remain. The reserve bank is required to receive checks and drafts on all member banks "on deposit at par" but the expense may be charged back on each member by a periodical assessment or in some other way. If these charges are made light, or if the earnings of the reserve banks make it possible for them to assume the entire cost of collections, member banks will probably find it profitable to clear through the reserve banks; if the charges are heavy it may be more economical for the banks to maintain their present clearing house organization. In years past business men have frequently complained of the high rates charged for collecting checks, and in the hearings which preceded the enactment of the new bank act, country bankers testified that in many instances fully one-half of their earnings came from such charges.

It is believed that the system of clearings and collections provided for in the Act will effect a saving to business men of hundreds of thousand of dollars in collection charges every year. The assumption is that since reserve banks may keep accounts with each other for exchange purposes, they will take each others' drafts at par. So when payments are to be made in other Federal reserve districts a business man instead of sending his own personal check will buy from his local bank, perhaps at par, a draft on the reserve bank of his district. On his check there may be a collection charge in the other district, but the

draft will be taken at par or will be subject to very moderate charges fixed by the Federal Reserve Board. Every city in which there is a reserve bank bill will, therefore, become a par point for the whole country. Heretofore, New York exchange has been superior to exchange on any other city for making remittances between different cities, but under the new system exchange on any of the twelve Federal reserve cities will be equally good, for each of them will become a par point for the entire country.

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CHAPTER XV

DOMESTIC AND FOREIGN EXCHANGE

109. Domestic exchange.—One of the most important functions of banks is to facilitate domestic and international trade transactions through dealing in domestic and foreign exchange. Just as banks in the same city settle their claims against each other through the clearing house, thus reducing to a small balance the amount to be settled in cash, so balances between different cities are settled by the operations of domestic exchange, and balances between countries by foreign exchange.

Reference has been made elsewhere to the work of the banks in facilitating payments and in collecting for their customers, checks, drafts and other instruments of credit in daily use. These transactions involve two sets of settlements: first, those between the buyer and the seller with the bank as intermediary; and second, settlement between the banks involved. It will be recalled that the personal draft or bill of exchange differs from a check in that it is drawn by one person upon another and not upon a bank. It may be drawn in favor of the drawer himself or of a third person, and it may be made payable at sight or at a certain number of days after sight or after date. If it is a time draft it will be presented to the drawee as promptly as possible for his acceptance. An accepted time draft becomes to all intents and purposes the promissory note of the acceptor. The use of these drafts in connection with bills of lading is described in the chapter on

loans and discounts. They are used extensively in the financing of the grain and cotton crops and many other lines of business. For example, a New Orleans cotton buyer when he sends a shipment of cotton to New York draws on the New York firm for the amount, attaches the draft to the bill of lading, and takes it to his local banker to realize on it. The banker buys the draft and the proceeds are placed to the shipper's credit at once or as soon as advice is received from New York that the draft has been paid or accepted. The banks render an important service in presenting, collecting and discounting these commercial drafts or bills of exchange.

While merchants and traders in different parts of the country are enabled through the agency of banks to make settlements with each other by offsetting the claims of one section against those of another, these claims never exactly balance. It becomes necessary, therefore, either to ship currency or to provide some form of credit that will have undoubted acceptability. This need is met by the use of the bank draft. A bank draft is an order drawn by the cashier of one bank on another bank or banker. Practically every bank in the country has funds on deposit with banks in other cities, and so is able to sell to its customers drafts calling for the payment of money in those cities. Owing to the fact that New York is the commercial and financial center of the country and that business men all over the country have financial dealings with New York, most banks find it advisable to keep deposits with banks in that city. Drafts on New York, commonly known as "New York exchange," are generally as acceptable as cash anywhere in the United States, and are widely used in making remittances from one part of the country to another.

Even remote country banks can usually sell New York drafts, for though they may not have deposit accounts in New York, they have an arrangement with some bank in a nearby city which maintains a New York deposit by which they, too, are permitted to draw upon it. Drafts

upon other large financial centers, like Chicago or St. Louis, are generally acceptable through the West and some local use is made of bank drafts on smaller places, but New York exchange is constantly being used to cancel debts all over the United States.

110. Currency movements.—The varying balances between credit and debit accounts due to the payments and collections constantly going on between different cities and sections of the country, and the offsetting of these accounts through the agency of the banks gives rise to the shipment of currency and to what is known as "rates of exchange." Thus, exchange on New York in Chicago or in Pittsburgh may be at par to-day, but a month hence it may be at a discount, and in three months the merchant who wishes to remit to New York or some other city may have to pay a premium for it.

The variation in the rates of exchange and the seasonal movements of currency to and from "the interior" can best be understood by noting exchange operations during the crop-moving season. In the late summer and autumn when the great grain crops of the West and the cotton of the South are being gathered and shipped to the East these sections must have large supplies of funds. Harvest hands and farmers must be paid and as consignments of grain and cotton are made to dealers in New York and other Eastern points heavy drafts are made on New York. New York exchange may become so plentiful that it will fall to a discount. The Western or Southern banker sends the drafts bought from shippers to New York and after a while he finds that he has a big credit balance there while his actual cash on hand is being exhausted, and he will be less and less inclined to buy more New York exchange. If he continues to buy it he must have some of the money, which has been piling up to his credit in New York, shipped to him in the form of actual currency. Naturally the banker will add to the regular exchange charge the cost of transporting the currency. This includes express charges and insurance and of course varies with the dis-

tance. The approximate cost of shipping $1,000 in currency from New York to Chicago is 50 cents, to New Orleans 75 cents, and to San Francisco $1.50.

The shipment of currency is arranged between the banks concerned, the customer ordinarily having nothing to do with it. He simply buys the exchange he needs at the ruling rate as determined by the action of the banks. Large business concerns, however, which must make heavy purchases of exchange frequently get quotations from several banks to take advantage of the fraction of a point which a particular bank may be able to offer because of its more favorable balance in New York or elsewhere. As indicated above, money is generally sent from one bank to another by express. Sometimes, however, the shipment of currency is avoided by coöperation with the United States Treasury. Thus a bank in New York wishing to transfer $1,000,000 to a bank in Chicago may deposit it in the sub-treasury in New York, which will telegraph the sub-treasury in Chicago to deliver that amount in currency to the Chicago bank. This has the advantage of promptness and safety, and also eliminates the cost of shipping the money.

It will be understood that the accumulation of credits in New York during the crop-moving season will be offset to some extent by debit obligations incurred in the West and South through the purchase of manufactured goods and all kinds of merchandise from Eastern dealers. In the winter and spring months the agricultural districts are buying largely from Eastern cities and selling little. As a result the demand in the interior for drafts on New York becomes so heavy that the country banks will charge a premium for New York exchange and generally will have to ship back to New York some of the currency they received a few months before to cover their drafts.

There is another reason, aside from the normal operations of exchange, for this seasonal movement of currency between New York and the country districts. In the harvesting and crop-moving months the West and South must

have large amounts of actual cash with which to pay harvest hands and farmers, cotton pickers and planters. To meet this demand the country banks, in the absence of a rediscount market, must order the cash shipped to them from New York and other reserve centers. Then in the winter and spring cash flows back into the country banks, and as there is comparatively little local demand for it during those months, they ship it back again to build up their balances in New York. They get a low rate of interest on these balances, but frequently they instruct their New York correspondents to lend a part of their balance when the money market is favorable.

This alternating ebb and flow of money with its resulting scarcity of funds at one season and abundance at another, due to defects in our banking system in the past, caused great disturbance of the money market, notably in the Eastern centers. When the banks of the interior began to draw down their New York balances in the autumn, the New York banks were compelled to curtail their loans. This affected not only stock exchange operations but also loans to business concerns, which at that season require not less but more loan accommodations. On the other hand, the flow of money back to New York at the beginning of the year caused large surplus reserves, low rates for money, and an expansion of loans for speculative purposes.

111. Treasury operations.—This situation was aggravated by the operations of the United States Treasury in its clumsy method of making collections and disbursements. At certain seasons of the year government receipts from customs and internal revenues are heavy and large sums of money are withdrawn from the channels of trade, thus lowering bank reserves, curtailing loans, and frequently causing acute monetary stringency. This is in striking contrast to the practice of foreign countries where a central bank acts as fiscal agent of the government and facilitates rather than hinders the normal operations of credit and the flow of currency.

In recent years the Treasury Department has resorted

to various expedients to correct these disturbances. Surplus receipts of public money, and recently daily receipts as well, have been deposited in designated national banks, but the Treasury required the banks receiving these deposits to give security by depositing bonds, and also required the banks to pay interest on the deposits. The Treasury has sometimes come to the relief of the money market by increasing these public deposits with the banks. It has also anticipated the payment of interest on United States bonds, and has even purchased the bonds themselves, in order to put cash into circulation. By a recent ruling of the Treasury Department, importers having customs duties to pay may do so by certified check instead of in gold.

The Federal Reserve Act provides that all government funds, except those held for the redemption of national bank notes and Federal reserve notes, may be deposited in Federal reserve banks, and though it is left to the discretion of the Secretary of the Treasury whether such funds shall be kept in the Treasury, the national banks, or Federal reserve banks, the latter will probably have the bulk of them.

112. Foreign exchange.—International transactions are settled by means of foreign bills of exchange on the same principles and in much the same way as domestic transactions are settled by the use of domestic bills of exchange. London holds much the same position with respect to the trade of the world that New York holds in the trade of the United States, and is therefore the chief center of international exchange. As New York exchange has been the chief instrument for settling balances between different cities in the United States, so has the London draft, or "sterling exchange," as it is commonly called, become the medium of exchange between countries. Carrying the comparison one step further it may be noted that just as balances between debtors and creditors in the United States are settled finally in some form of currency, so in the settlement of balances between nations money must ulti-

mately be shipped. In making international settlements, however, gold either in the form of coin or bullion is the only universally acceptable medium.

The essential principles underlying the foreign exchange business may be shown by a simple concrete example. A cotton factor or dealer in New Orleans sells 100 bales of cotton to an importing house in Liverpool and draws a draft for £1,000 on the Liverpool firm. The factor takes the draft or bill of exchange to his banker who buys it at the current rate of exchange, say, 4.86, and gives the customer $4,860. The banker sends the bill of exchange to his correspondent in Liverpool or London, who collects the draft and places the amount to his credit. The banker in New York or New Orleans is willing to buy these sterling bills because American importers of foreign merchandise are continually wanting such bills to meet their obligations abroad. With the £1,000 to his credit in Liverpool he can sell his own draft to a customer for that amount at the current rate of exchange. Of course he will expect to make a profit on the transaction, and will sell his draft for, say, $4,870, thus making a profit of $10. In the same way British merchants exporting goods to the United States draw upon the American importer and sell their drafts to London bankers who send them to their New York correspondent for payment or for acceptance and collection, receiving credit for the amount. While the process of foreign exchange is not always so simple and direct as in the example just cited, yet it serves to show the nature of the foreign exchange banker's business, which consists in the buying of bills of exchange, depositing them with correspondent bankers abroad, and selling drafts against the credit thus obtained at a higher rate of exchange.

113. Supply and demand of foreign exchange.—Before taking up the mechanism of foreign exchange it may be well to examine briefly the sources of supply and demand which give rise to foreign bills. Basically the supply of and demand for foreign exchange is due to our trade with foreign countries. For the fiscal year ending June 30,

1913, the total exports of the United States to other countries amounted to $2,400,000,000 and our total imports for the same period amounted to $1,800,000,000. It is evident that a vast amount of foreign exchange must arise from the direct export and import of this enormous volume of merchandise. Without the service of the foreign exchange banker in effecting transfers of credit, much of this "balance of trade" between the United States and other countries would have to be settled by the shipment of gold.

In addition to the visible trade in merchandise, there is a large "invisible" foreign trade consisting of the exchange of evidences of debts, which has an important influence upon the movement and the price of foreign exchange. This invisible trade consists largely of international dealings in securities and in private and bankers' investments. European investors are large buyers of American stocks and bonds, payment for which gives rise to sterling exchange in precisely the same way as the export of cotton or grain. On the other hand, American investors have in recent years been buying extensively of foreign bonds. Then, again, there come times when European holders of American securities wish to dispose of them and we are required to buy back large amounts of our stocks and bonds. These transactions in securities give rise to a strong demand for exchange.

The making of international loans by bankers and of private investments in other countries are other classes of the invisible foreign trade that cause the drawing of large amounts of foreign exchange bills. Loans are constantly being made by bankers in one country to bankers and financial houses in another. If at a particular season the rates for money are higher in New York than in London, a London banker may cable his New York correspondent to draw upon him at 60 or 90 days' sight for £20,000 and to invest the proceeds realized from the sale of the draft in good commercial paper. In 1906 large sums of English and French capital were thus loaned in this country and in 1909 "American borrowings in London and Paris footed

up to at least half a billion dollars."[1] On the other hand, in 1897, when business was dull in the United States and active in Europe, American bankers attracted by the higher interest rates in Berlin and Paris allowed their European balances to increase, thus virtually lending to European centers. In this connection the use of the "finance bill" may be briefly noted. When money rates become decidedly higher in New York, for example, than in London or Paris, New York bankers arrange with bankers in those markets to allow them to draw bills at 60 or 90 days. These bills are sold and the proceeds loaned on the local market at the high rates. Before the drafts fall due some arrangement must be made, of course, to reimburse the foreign drawee. The arranging of these international loans creates large amounts of foreign exchange.

Many millions of dollars have been invested by foreigners in American mines, farms, timber lands, railroads and other enterprises, and Americans are beginning to invest capital in Mexico, South America, Canada and other countries. Exchange is affected not only by the drawing of exchange to meet these investments, but also by the necessity of remitting periodically the interest and dividends on the investments.

Other items which enter into the invisible trade causing a demand for foreign exchange are the disbursements of American travelers in Europe. It has been estimated that American tourists spend between $100,000,000 and $200,000,000 a year in foreign lands. Then the expenditures of wealthy Americans living abroad for a part of the year, or permanently, call for many millions more. These expenditures must be met eventually by remittances of exchange from this side. This demand is offset in part by the supply of sterling exchange brought by foreign tourists to this country.

Still another important source of demand for foreign exchange is the freight paid to foreign ship-owners for carrying our enormous foreign trade, the greater part of

[1] Escher: Elements of Foreign Exchange, p. 12.

our shipping being handled by foreign vessels. Our freight bill probably amounts to $150,000,000 a year, which must be remitted in exchange to foreign companies. So, too, the payment of insurance premiums to foreign concerns makes a steady demand for exchange.

Summarizing the foregoing analysis, it may be stated that the principal sources of the supply of foreign exchange are exports of merchandise, sales of securities abroad, transfers of foreign banking capital to this side, and the sale of finance bills to European bankers; and that the principal sources of the demand are imports of merchandise, purchases of foreign securities, remittances of dividends and interest on foreign capital invested here, expenditures of tourists, and remittances for freight and insurance. As already noted, the direct export and import of merchandise is the largest factor in the demand for, and the supply of, foreign exchange. For many years the total exports of the United States have exceeded the total imports by many hundreds of millions of dollars, yet this excess does not lead to any marked excess of gold imports over exports of gold, though shipments of gold are made periodically to and from this country for reasons that will be explained later. Our excess of exports over imports is offset largely by such items in the invisible trade as securities owned abroad and the interest and dividend payments on them, freight payments to foreign ship-owners, and tourists' expenses in Europe.

114. Rates of exchange.—The quotations for exchange are the prices at which the right to receive money in a foreign country is bought and sold in another country and vary according to supply and demand. Distinction must be made between the "mint" par of exchange and the "commercial" par of exchange. Mint par of exchange between the United States and another country is the actual value in our money of the pure metal contained in the coins representing the units of money in the other country. Thus the mint par of exchange of the English pound sterling in our money is $4.8665, of the French franc 19.3

cents and of the German mark 23.8 cents. The mint par of exchange between any two countries is determined by dividing the weight of pure gold in the standard coin of the one by the weight of pure gold in the standard coin of the other. The English sovereign or pound sterling contains about 11.3 grains of pure gold and our dollar contains 23.22 grains of pure gold. Dividing we have 4.8665, which means that the pound sterling is worth 4.8665 times as much as our gold dollar. In the same way the mint par between the dollar and the mark, franc, or guilder is determined. While our transactions with Germany, France and Holland give rise to a large amount of bills drawn in the currency of those countries, yet the great bulk of our dealings is in sterling exchange. For the sake of clearness, therefore, we shall confine our attention largely to the operations of sterling.

If the volume of exports and imports and the items involved in the invisible trade were to balance exactly there would be a commercial par of exchange also, and sterling bills would be bought and sold for $4.86 in American money. This equilibrium in international business rarely occurs, however, and the price of sterling seldom corresponds to the mint par, but varies with the demand for, and the supply of, bills. How widely may the rates of exchange vary from the mint par? This brings up the question of the so-called "gold points." At certain seasons of the year when imports into the United States are greatly in excess of exports, there is such a demand for drafts on London that bankers are able to charge a premium on them. Now the American importer having to make remittances abroad has two alternatives; he may either send a draft on London or have the gold shipped. The cost of shipping gold between London and New York is about two cents to the pound sterling. As long as the price of sight exchange on London is less than $4.886, that is, the par of exchange plus the cost of shipping gold, it will pay the importer to buy a bill rather than to ship the gold. When exchange rises above that point, known as

the "gold export point," gold will probably be shipped. On the other hand, when exports exceed imports New York bankers buy more sterling than their customers need and after a while they will be willing to buy bills only at a discount. But again the American exporter has two methods of receiving funds from abroad: he can draw a bill on his foreign debtor and sell it in New York or he can order the gold shipped to him. As it costs two cents to ship the gold he will not be willing to sell his draft for much less than $4.846 ($4.866 less .02), for if it falls below that point, called the "gold import point," it will be more profitable for him to have the gold shipped from abroad.

It will be understood, of course, that individual traders do not export and import gold; this business is handled, like exchange itself, by the bankers, and is largely concentrated in the hands of a few international banking houses. In general then it may be said that when, as a result of heavy demand, drafts on London are selling at $4.886 in New York, American bankers may find it equally or more profitable to meet their foreign obligations by shipping gold instead of remitting in sterling exchange. On the other hand, when exchange has fallen to $4.846 and remittances are to be made from London to American bankers, they may find it more profitable to have the gold shipped to them from London than to sell drafts on London at the low rate of exchange. Theoretically, therefore, the price of sterling bills cannot under normal conditions rise much above $4.88, nor fall much below $4.84. It must be understood that these "gold points" are not fixed, but that they vary from time to time with the rate of interest and other influencing factors.

115. Correctives of foreign exchange.—When sterling exchange reaches either the gold exporting point or the gold importing point, certain forces, known as "correctives of the exchanges," come into operation to restore the international equilibrium. In the following explanation of the influences bearing upon the rise and fall of foreign ex-

change we shall for the sake of simplicity consider only the two great financial centers, London and New York. It should be borne in mind that when the rates of exchange on London are falling in New York, exchange on New York is rising in London and vice versa. The first corrective tending to bring down the price of exchange is the reduced demand for bills. When sterling rises to $4.89 or $4.90 bankers begin to buy gold and ship it abroad to create balances against which to draw and sell bills at these high rates. People who were in the market for bills now shift their demand to gold, thus lessening the demand for bills and tending to reduce the price. The second corrective is a lower level of prices resulting from the withdrawal of gold. The withdrawal of gold reduces the bank reserves and causes a curtailment of loans and credit. With the consequent slackening of business, commodity prices tend to fall and exports increase. The increase in exports gives rise to an increased supply of bills of exchange and a resulting decline in their price.

Another corrective of advancing foreign exchange when the price reaches the gold exporting point is the rise in the rate of interest. The curtailment of credit due to the withdrawal of funds from New York results in higher interest rates. A rising interest rate reduces the demand for exchange, first, because American bankers are instructed by their foreign correspondents to leave their funds in the New York market to take advantage of the high rates; and, second, because American banks will sell bills of exchange in order to secure funds to loan in this market. The action of these correctives will sooner or later bring about a fall in the price of exchange and the export of gold will be checked.

The correctives of falling exchange preventing a decline below the gold importing point operate in the same way. When sterling exchange falls to about $4.84 exporters instead of receiving their money by selling drafts on London have the gold shipped to them. This reduces the supply of bills and causes an increase in their price. In the sec-

ond place, the importation of gold tends to raise the level of commodity prices, which results in increased imports and larger demand for exchange with which to pay for them. The increased demand for bills tends to raise their price. The third corrective is the interest rate, which operates in the same way as in rising exchange. When the interest rate in New York is low, it pays the banker better to buy bills of exchange than to loan in this market. Then again, instead of calling his funds home he will give instructions to have them loaned in the London or Paris market where the interest rate may be higher. These two factors, one decreasing the supply of bills and the other increasing the demand, will bring about a rise in the quotations for sterling, and after a time gold will tend to flow back again to this side. While the foregoing explanation does not cover all the influences bearing upon the rise and fall of foreign exchange, it probably embraces the most important factors.[1]

116. Gold movements.—London is the world's great primary gold market, and the bulk of the raw gold mined in South Africa and Australia goes direct to that center to be sold at the best price available. Practically all the leading commercial countries, except the United States, which is an important gold producer, must look to the London market for fresh supplies of gold. Every Monday morning there is a public auction of the new gold, and bullion brokers, representing foreign and local banks, meet to buy and sell bullion. The Bank of England is required by law to buy all the gold offered to it at the rate of 77s 9d per ounce and this fixes the minimum price. How far the actual selling price will go above this minimum will depend upon the needs of the various banks bidding for the gold.

The primary distribution of gold to the various foreign centers needing it, through the weekly auction in London, is, however, only temporary. Berlin may bid high enough

[1] For a full discussion see Escher: Elements of Foreign Exchange, Ch. III.

to get most of the gold arriving in London in any one week, but within a short time the shifting of exchange may cause Berlin to lose it to London or Paris. A continuous movement is going on along the lines of favorable exchange. In general, gold goes out when exchange is high, and comes in when exchange is low.

London is often referred to as a "free" gold market. It is free in the sense that the auctions of new gold are open to all reliable bidders, but the conditions are such that the Bank of England can generally outbid all others if it needs the gold. It also regulates the export of gold by raising its discount rate. In Germany the Imperial Bank resorts to a somewhat similar method to protect her gold supply, and in France the Bank of France protects the gold reserve by paying its notes in silver instead of gold, or by charging a premium for gold.

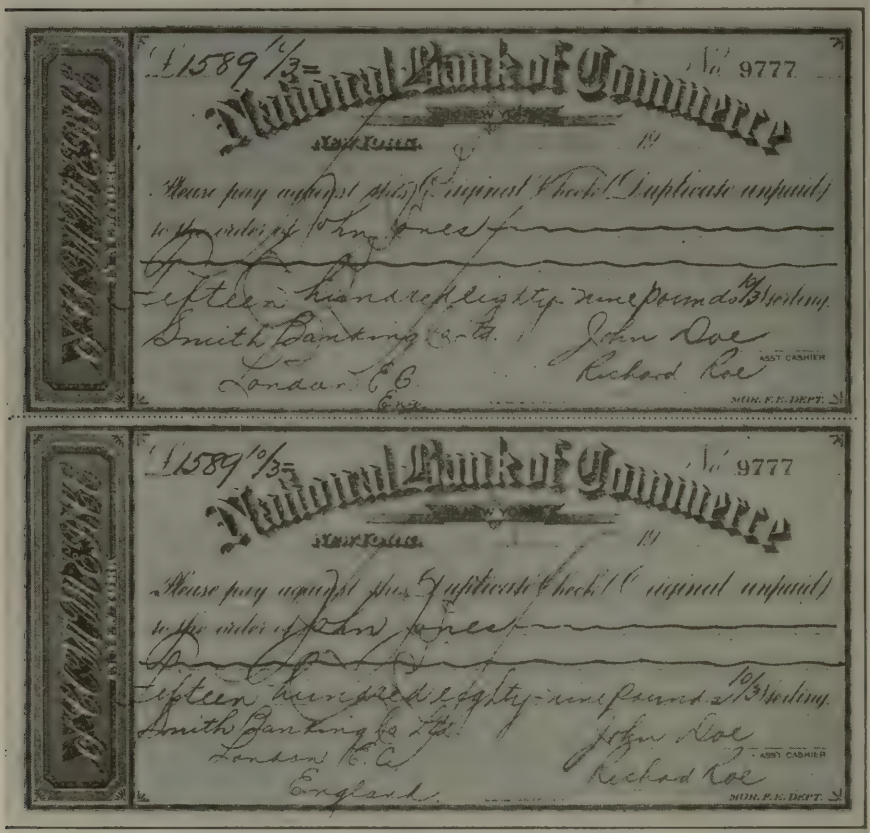
The only actual free gold market in the world is the United States, where anybody who wants gold can get it at the nearest sub-treasury. In the past this has been the only important country in the world that lacked the banking machinery necessary to control international gold movements by changes in the discount rate or otherwise. Under our decentralized and independent system of banks it has been impossible to secure that unity of policy in matters affecting international exchange which European countries exercise through their central banks. It is believed, however, that the Federal reserve system will provide a centralized, coöperative agency with the power and the responsibility of regulating the export and the import of gold.

117. Varieties of foreign exchange.—There are three principal forms of foreign exchange—the commercial bill of exchange, the banker's or finance bill, and the letter of credit. Commercial long bills are drafts drawn by shippers of merchandise upon the foreign buyers or their banking representatives at thirty days' sight or more. If they are accompanied by bills of lading and other shipping papers they are known as "documented" bills; otherwise

they are called "clean" bills. Drafts of the former kind drawn against shipments of cotton and grain make up the bulk of the commercial foreign exchange handled in the New York market. Documented bills are accompanied by the bill of lading, the invoice of the goods, and usually an insurance certificate. Sometimes there is attached to the draft with these papers a "hypothecation slip" which formally conveys to the banker buying the draft the right to the goods. In the case of meats and a few other exports "certificates of inspection" accompany the bill.

When a New Orleans factor sells one hundred bales of cotton to a Liverpool cotton firm with the understanding that the latter is to be drawn upon at sixty days' sight, he draws the draft, attaches the bill of lading and insurance papers, and either takes the papers to his local banker or sends them to New York to be sold at the current rate of exchange. The New Orleans shipper gets his check or New York draft for the amount of the draft and has no more interest in the transaction. The banker who has bought the draft sends it to his foreign correspondent in London or Liverpool with instructions to present it to the drawee for acceptance. If the drawee is a firm of recognized standing the bill of lading will be delivered to him as soon as he accepts the draft and he will be able to get possession of the cotton at once. Where the drawee's standing is not so well known, or where the merchandise is perishable, the documents will be surrendered only on actual payment of the draft under a discount or rebate arrangement. Bills of the former class are known as "acceptance" bills; the latter are called "payment" bills. Payment bills drawn against perishable goods like grain command a higher rate of exchange than acceptance bills. The consignee in order to get possession of the grain and to prevent it from spoiling must pay the draft under rebate. In the London market the rate for loans rules lower than the discount rate; consequently less pounds sterling will be taken off the face of the grain bill in the process of rebating than off the cotton bill in discounting.

Clean commercial bills are drafts, unaccompanied by shipping documents, drawn by commercial houses in one country on houses in other countries. Sometimes where there exists an old and intimate relationship between an exporting house



Foreign Bill of Exchange

in one country and an importing house in another, merchandise is shipped and the drawing against it is by agreement postponed for some time. When the shipper finally draws, the draft will be clean, that is, it will have no documents attached to it, for these went forward at the time the merchandise was shipped. A banker buying a bill of this kind has no security whatever except the standing of the

firms concerned. In the case of a documented bill the banker holds the bill of lading until the draft is accepted or paid, and if necessary to protect his own interest he can seize and sell the goods. Clean bills have no such security and bankers generally refuse to handle them except when drawn by the very best houses. Clean bills may arise also from the transfer of capital from one country to another. While the great bulk of documentary commercial bills are drawn at thirty days or longer, a good many small bills are drawn at less than thirty days. Generally these "short" sight bills are subject to the rule of payment rather than acceptance.

International dealings in stocks and bonds give rise to a large volume of foreign exchange. A banker in New York sells a block of securities to a London banker and draws for the amount of the purchase at the prevailing rate of exchange. The securities are attached to the draft, which is then sold in the open market. Exchange of this kind is of the highest class, since the buyer gets the securities as collateral and does not give them up until the draft is presented and paid in London.

Bankers frequently buy foreign exchange as an investment.[1] It sometimes happens that discounts rise in Europe, forcing down the rate of exchange on commercial long bills. If at such times money is easy in our markets bankers buy heavily of long exchange, not to have it discounted and placed to their credit as in the ordinary transaction, but to hold it as an investment. Instead of indorsing the *firsts* of bills of exchange and remitting them to his foreign correspondent for discount, the banker writes across the face of the bills the words "For acceptance only," and instructs the correspondent to obtain acceptance and to hold the bills subject to the call of the indorsed *seconds*. Of course the documents are delivered to the drawee when he accepts the bill, so that he can get the goods. The seconds of exchange remain in the possession of the banker with interest accruing until maturity. At

[1] See Margraff: International Exchange, pp. 61-65.

any time before maturity these seconds can be indorsed and remitted for collection and credit to any banker who, by presenting them, obtains possession of the firsts; the two parts, that is, the accepted firsts and the indorsed seconds, constituting the completed bills. The profit on this kind of transaction arises from the fact that the banker is able to buy ninety-day bills in this country at a low rate as compared with sight bills because the discount is based on the rate of interest in the foreign country. Moreover, these bills can be sold by the banker at any

Guaranty Trust Company of New York

Fcs. 32500.00/100 New York August 1st 1912

Pay Paul Poiret

or order (Duplicate being unpaid) the sum of

Forty two Thousand, five hundred 00/100 Francs

Check against our credit.

SOCIÉTÉ GÉNÉRALE POUR FAVORISER, ETC.

No. 17205 PARIS.

TRANSFER BILL OF EXCHANGE ON PARIS

time before maturity, thus giving him the high rate of interest of the time loan and the instant convertibility of the call loan. Bankers' long bills also are purchased for investment, but they do not have any documents attached.

118. Banker's bills.—Foreign exchange bankers keep balances in several financial centers against which they draw and sell demand drafts or "checks," as they are commonly called. As the name indicates, they are payable on presentation and demand. "Cable exchange," or "Cables," differs from sight drafts only in that the foreign banker who is to pay out the money is instructed to do so by cablegram instead of by letter. Generally, foreign exchange bankers who sell cables carry large balances on the other

side. These balances may be accumulated by remittance of all kinds of bills, both time and demand.

Time drafts sell at a lower rate than sight bills because of the loss of interest on the amount to be paid. Cables cost more than the ordinary sight bill by at least the cost of the cablegram. "Posted rates" are the bankers' public notices of the rates of exchange. They apply to bills for small amounts and actual sales of large bills may vary considerably from these posted rates. The bills of houses enjoying high credit generally command a better price than others. The price of time bills is affected by the rates for money at the foreign center because they are remitted for acceptance and usually discounted at the prevailing rate there.

Bankers' long bills drawn at sixty and ninety days' sight may be divided into three classes: (1) long bills drawn in the regular course of business; (2) long bills issued in the operation of lending foreign money; (3) finance bills. Bankers engaged in the foreign exchange business are constantly called upon to supply customers with bills drawn at sixty and ninety days' sight. Take, for example, the case of a New York importer who has an obligation maturing in London in two months but who has the money on hand and wants to pay it now. Instead of sending demand sterling, that is, a demand draft on London, and getting a rebate of interest for the sixty days, he will more likely send a sixty days' sight draft, the cost of which will be considerably less than a demand draft.

The great proportion of bankers' long bills arise from the lending of money in foreign financial centers. European bankers keep millions of dollars loaned out in the New York market. Bankers' long bills are created in the making and renewing of these loans and find their way into the exchange market.[1]

119. Finance bills.—The third kind of bankers' long bills are finance bills. A finance bill is a draft drawn by a banker in this country on a foreign banker for the purpose

[1] For a full discussion of this subject, see Escher, pp. 83-94.

of securing funds here for the time being and with the intention of meeting the draft at maturity by the purchase of demand sterling. American finance bills are drawn at thirty, sixty, or ninety days, and usually are not covered by collateral security. The foreign banker who accepts these drafts becomes, as it were, an accommodation indorser, and is responsible for their payment at maturity if they are not met by the drawer. Naturally, therefore, only the best houses with strong foreign connections and high credit can float such bills. The drawee bank charges a commission for accepting the bill varying from 1/16 to ¼ of 1 per cent, according to the tenor of the bill, the financial responsibility of the drawer, and the character of the security if the bill is covered.

The conditions under which it is advantageous for the banker to raise funds by drawing finance bills vary with the season of the year and other factors. Primarily, of course, the use of the finance bill is based upon the idea that the banker can borrow funds abroad where money is cheap and lend them at home at a higher rate. But the condition of the exchange market is always a prime consideration. After the banker sells his finance bill at ninety days the operation is only half completed. When the bill matures he must buy sight exchange and send it to his correspondent to meet the bill. His profit depends then to a great extent upon the price at which he is able to "cover," that is, purchase sight exchange to meet his maturing finance bill. In the summer months money is apt to be low and exchange high, but during the fall and early winter when exports are moving out in great volume there is a plentiful supply of bills, and at that time bankers, who have put out bills in the summer, can generally purchase sight exchange at a low rate to cover their maturities. In calculating the profit made in the handling of finance bills there is on one side of the balance the proceeds from the sale of the ninety-day draft, which will be close to the face of the draft as the discount rate in England is low, plus the interest received from the loaning

of the proceeds; on the other side is the price paid for demand exchange at the end of the ninety days plus the commission charged for acceptance by the foreign banker. There is a strong element of speculation in the handling of finance bills, but it affords opportunity for large profit and many of the big exchange bankers engage in it.

120. Arbitraging.[1]—Arbitraging in exchange may be briefly defined as the purchase of exchange on one country through another country. Thus, for example, when exchange on Paris is more plentiful in London than it is in New York, an exchange banker in New York needing a draft on Paris may be able to buy it cheaper in London than at home. The following example will illustrate a simple arbitraging transaction.[2] A banker in New York sells a draft on Paris for 25,250 francs. The rate is 5.17½ (5 francs 17½ centimes to the dollar), so that he realizes on the sale $4,879.23. Cabling to London he finds that the rate there on Paris is 25.25 (£1 = francs 25.25). It will therefore take just £1,000 to buy the francs 25,250 he needs. Sterling exchange is selling at 4.84. He decides to buy a draft on London for £1,000, costing him $4,840, and sends it to London with instructions to his correspondent to buy with it a bill on Paris for francs 25,250 and to send it over to Paris to the credit of his account. By this triangular arrangement he has been able to sell to his customer a draft on Paris for $4,879.23 and to provide funds there to meet it at a cost of $4,840.

Speaking of exchange arbitration, Escher says: "Experts do not confine their operations to the main centers, nor is three necessarily the largest number of points which figure in transactions of this sort. Elaborate cable codes and a constant use of the wires keep the up-to-date exchange manager in touch with the movement of rates in every part of Europe. If a chance exists to sell a draft on London and then to put the requisite balance there

[1] For full discussion of arbitraging, see Margraff: International Exchange, Ch. XXVI.

[2] Escher, p. 98.

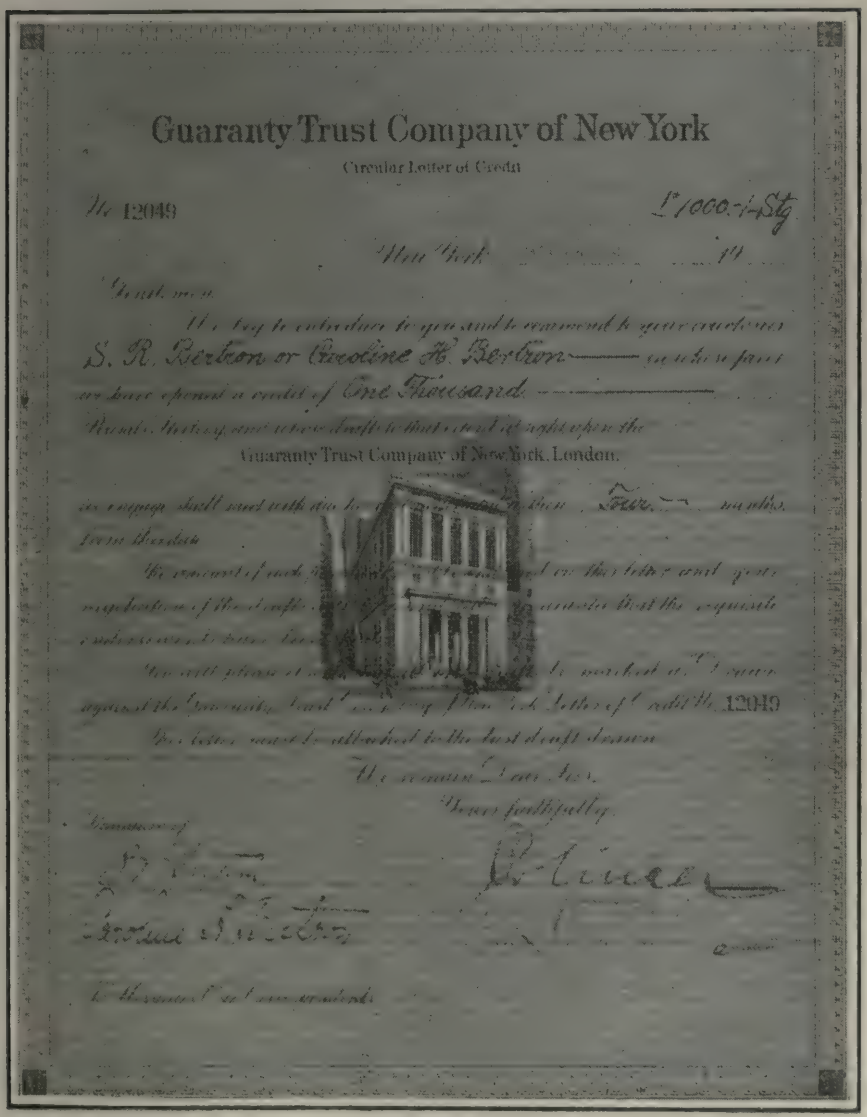
through an arbitration involving Paris, Brussels, and Amsterdam, the chances are that there will be some shrewd manager who will find it out and put through the transaction. Some of the larger banking houses employ men who do little but look for just such opportunities. When times are normal the margin of profit is small, but in disturbed markets the parities are not nearly so closely maintained and substantial profits are occasionally made. The business, however, is of the most difficult character, requiring not only great shrewdness and judgment but exceptional mechanical facilities.[1]

121. Dealing in futures.—The dealing in contracts for future delivery of exchange arises from two broad classes of operations. Bankers who buy and remit to their foreign correspondents large amounts of exchange, including both acceptance and payment commercial long bills, frequently sell their own demand drafts for future delivery, trusting that the payments under rebate on payment commercial bills will be sufficient to meet them. "Not infrequently good commercial payment bills can be bought at such a price and bankers' futures sold against them at such a price that there is a substantial profit to be made." Bankers' futures are sold also not against remittances of commercial bills but against exporters' futures. An exporter who desires to quote a price to a foreign customer on merchandise to be shipped three months hence must know what exchange will cost him at that time. The banker will quote him a rate somewhat higher than he calculates he may be able to sell his draft at that future date. The exporter knows exactly what he will have to pay for exchange when he needs it; the banker takes a chance on the future condition of the exchange market.

122. Letters of credit.—Letters of credit issued by bankers to their customers are of two kinds: travelers' letters of credit and commercial letters of credit. The demand for letters of credit by the great and increasing number of Americans who travel in foreign countries is so large that

[1] *Ibid.*, p. 101.

many banks as well as private bankers now issue them. A letter of credit is a circular letter addressed to the correspondents of the issuing bank introducing the holder, certifying that he is authorized to draw a certain sum of money, and requesting that his drafts be honored up to


Guaranty Trust Company of New York

Circular Letter of Credit

No 12049 £1000-0-Stg

New York ... 19..

Gentlemen

We beg to introduce to you and to recommend to your courteous S. R. Berton or Geoline H. Berton ——— as the case may be who have opened a credit of One Thousand ———

Pounds Sterling and we have drafted to that amount at sight upon the Guaranty Trust Company of New York, London.

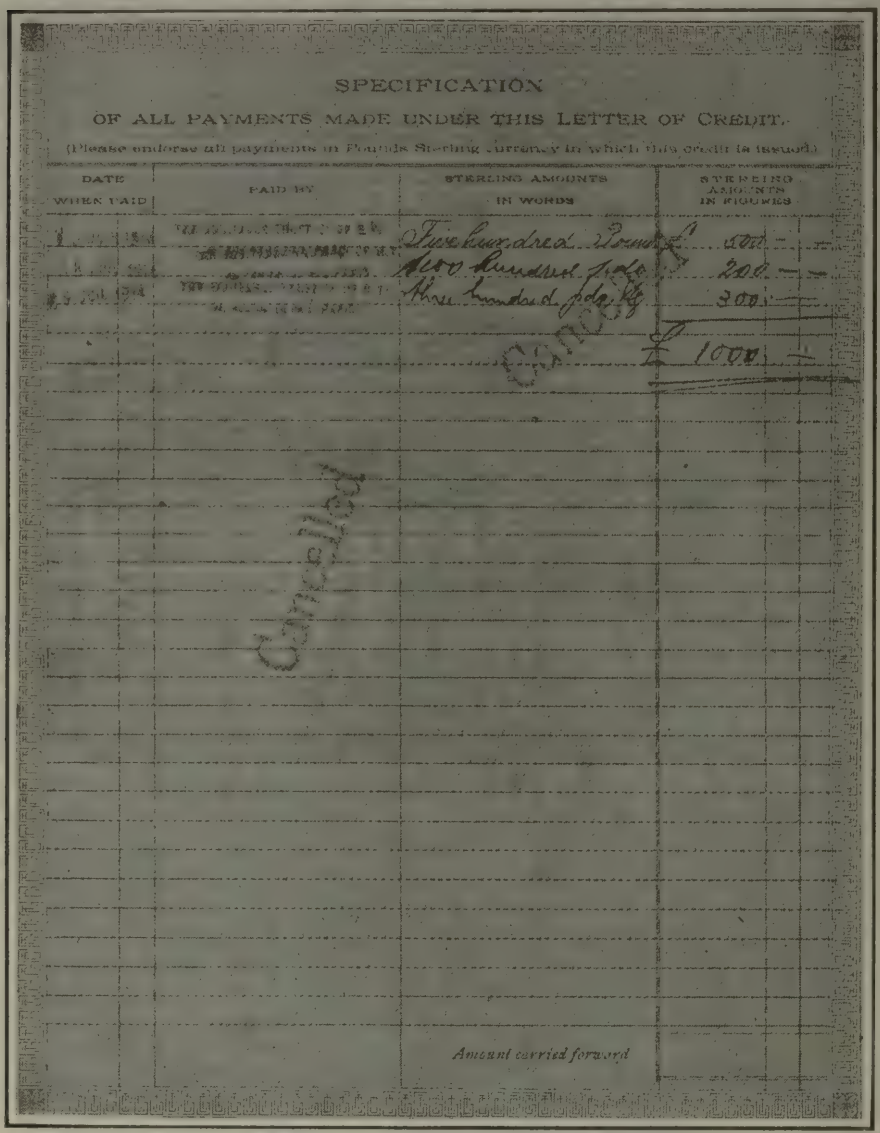
... Four ... months from Date

... 12049

Yours faithfully

Letter of Credit—Front

that amount. A list of the foreign correspondents is added on a separate leaf of the letter. The signature of



SPECIFICATION

OF ALL PAYMENTS MADE UNDER THIS LETTER OF CREDIT.

(Please endorse all payments in Pounds Sterling currency in which this credit is issued)

DATE WHEN PAID	PAID BY	STERLING AMOUNTS IN WORDS	STERLING AMOUNTS IN FIGURES
		Five hundred Pounds	£ 500 — —
		Two hundred Pds	200 — —
		Three hundred Pds	300 — —
			£ 1000 — —

Cancelled

Amount carried forward

LETTER OF CREDIT—BACK

the traveler is written at the bottom of the letter. Every time he draws money at one of the correspondent offices he signs a draft or receipt for the amount drawn and his

signature is carefully compared with that on his letter. Each time money is thus drawn the amount is indorsed by the paying agent on a sheet of the letter, with the date, the amount both in writing and in figures, and the name of the bank or agent making payment. Letters of credit are usually drawn in pounds sterling, and the amount of each draft is converted into marks, francs, or whatever kind of money the traveler needs where he happens to be. Whatever balance may remain when the traveler returns will be redeemed by the banker issuing the letter.

Generally the tourist buys the letter outright at the ruling rate of demand exchange plus 1 per cent commission. If the buyer is a depositor enjoying high credit the bank may issue a letter of credit to him without payment until the customer's drafts have been received from abroad. Sometimes where the amount of the letter is large and the period of absence considerable no commission is charged, the use of the undrawn funds being regarded as sufficient compensation.

A modified form of the letter of credit is the traveler's check which is issued by the American Bankers' Association and several of the large express companies. These express checks are made out in even amounts of dollars, ten, twenty and so on, and state on the face the equivalent value in pounds, francs, marks, etc., so that the traveler knows the exact amount he should receive when he cashes a check in a foreign city. The user of the checks writes his name on the face of each, and on a space below he signs his name again when he cashes them. These express checks are readily cashed all over Europe by bankers and hotel keepers either at par or for a small commission. Banks are generally willing to cash letters of credit and travelers' checks because they furnish exchange on London, which is always and everywhere in demand.

123. Commercial letters of credit.—The commercial letter of credit is somewhat similar in principle to the traveler's letter, but it is used to pay for merchandise purchased from exporters in foreign countries. In effect it author-

izes an exporter to draw against the correspondents of the issuing bank for the amount named in the letter on account of specific shipments. As a rule it is issued in pounds sterling, as this form of credit is the most readily negotiable throughout the world. By means of a commercial letter of credit an importer can purchase merchandise in any foreign country on a cash basis, although he will not have to pay for it until the maturity of the drafts drawn by the exporter, from one to six months after date of acceptance. At the same time the exporter in a foreign land receives his payment on a cash basis as soon as he presents to the local representative of the issuing bank evidence that he has shipped the goods according to contract.

The financing of commercial credit may take various forms, but the principles upon which the whole business is based may be shown by a concrete case.[1] A silk manufacturer in Paterson, New Jersey, purchases by cable ten bales of raw silk in Canton, China. He goes to his banker in New York and gets a commercial letter of credit covering the terms of his purchase. Such a letter would be addressed to some bank in London requesting it to "accept" the drafts of the Canton merchant up to a specified amount and under certain conditions relating to bills of lading, insurance papers, etc. The New York banker sends the letter of credit to the silk exporter in Canton, who ships the goods to New York after having them insured and receiving the marine bill of lading and the insurance certificate. The Canton merchant then draws a four months' draft on the London correspondent of the New York bank, attaching to it the invoice, bill of lading, and other shipping papers. He takes the draft to his local bank and sells it at the prevailing rate for four months' exchange on London. He has received his payment for the goods and is out of the transaction.

Long before the silk gets to New York the draft will reach London and be presented to the London correspondent of the New York bank. If the London banker is

[1] Escher, pp. 143-160.

satisfied that the draft and the documents conform to the terms of the credit, he accepts the draft, marking it payable four months from the date of presentation. He then dispatches the documents which were attached to the draft to the New York banker by mail steamer. After a time

N 90 / 61

Credit No. 2982

Guaranty Trust Company of New York

£2,775.- Sterling

Foreign Department

New York, January 16, 1914.

Messrs. Geo. Henderson & Co.;

Calcutta, India.

Gentlemen:

We hereby authorize you to value on the Guaranty Trust Company of New York, 33 Lombard St., London, for account of Milwaukee Bag Co., Milwaukee, Wis., up to an aggregate amount of Twenty-seven hundred and seventy-five Pounds Sterling available by your drafts at six (6) months sight against shipment of Hessians from Calcutta, India to Milwaukee, Wis. Insurance effected in the United States

Bills of Lading for such shipments must be made out to the order of the Guaranty Trust Company of New York, unless otherwise specified in this credit.

CONSULAR INVOICE AND ONE BILL OF LADING MUST BE SENT BY THE BANK OR BANKER NEGOTIATING DRAFTS, DIRECT TO THE GUARANTY TRUST COMPANY OF NEW YORK, NEW YORK, UNDER ADVICE TO GUARANTY TRUST COMPANY OF NEW YORK, LONDON.

The remaining documents must accompany the drafts drawn on Guaranty Trust Company of New York, London.

The amount of each draft, negotiated together with date of negotiation, must be endorsed on back hereof.

We hereby agree with bona fide holders that all drafts drawn by virtue of this Credit, and in accordance with the above stipulated terms, shall meet with due honor upon presentation at the Office of the Guaranty Trust Company of New York, London if drawn and negotiated prior to July 15, 1914.

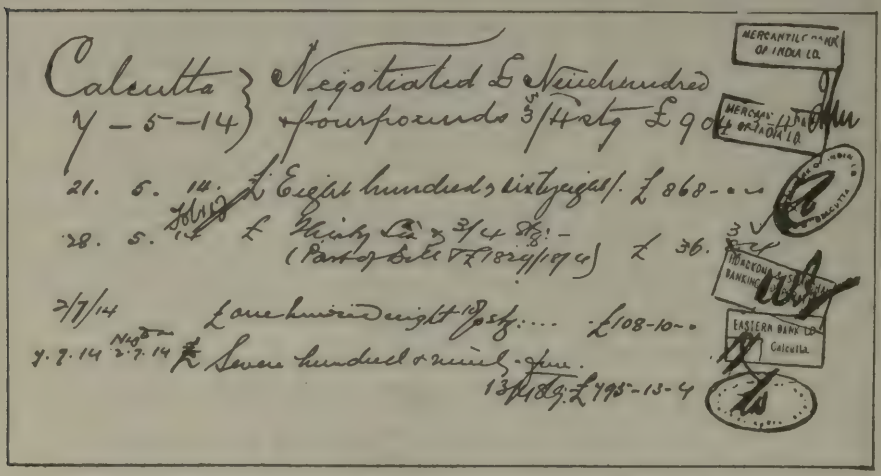
Guaranty Trust Company of New York,
by

Cancelled

N. B. Drafts drawn under this Credit must state that they are "drawn under Letter of Credit No. 2982 Dated January 16, 1914"

COMMERCIAL LETTER OF CREDIT—FRONT

the silk also arrives and arrangements must now be made by which the Paterson manufacturer may get possession of it. He has not paid anything on the importation, yet he wants the goods. On the other hand, when the banker surrenders the bill of lading he parts with the only security he has for the payment of the draft for which he is responsible through his London correspondent. Sometimes the goods are stored and turned over to the merchant only when he shows that he has sold them and needs them to



Commercial Letter of Credit—Back

make delivery. In the case of this raw silk it may be warehoused and parcelled out to the manufacturer in small lots as needed. More generally the importer gets possession of the goods by signing a "trust receipt."[1] This receipt states that the manufacturer has received the goods and that he will sell them and apply the money received to the payment of the four months' draft before or at maturity. The particular form of receipt will depend upon the standing of the firm signing it. Most trust receipts stipulate that the proceeds from the sale of the goods will be kept separate from other assets of the firm and deposited with the banker as the goods are sold. At the end

[1] For form of trust receipt, see Escher, p. 150.

of the four months the draft drawn by the Canton firm and accepted by the London bank falls due and the New York banker must remit funds to meet it. If before the draft matures the Paterson concern has not met its obligation to the New York banker by prepayments as the silk is manufactured or sold, the banker will send it a memorandum of the amount due, which will be the face of a demand draft at the ruling rate of sight sterling plus the banker's commission. The Paterson firm sends a check for the amount. The New York banker then buys demand exchange on London and remits it in time to cover the maturing draft in London, thus closing the entire transaction.

We have already noted the advantage to both the importer and the exporter in the use of the commercial letter of credit. The banker's interest in the transaction is one of commission. The New York banker gets a commission from the silk importer, and the London banker on whom the credit is issued gets a commission for accepting the drafts. Yet neither banker has had to put up any actual money, the whole operation being based upon the banker's credit.

124. The foreign exchange department.—The rapid extension of our foreign trade and the increasing numbers of Americans traveling abroad has resulted in a demand for wider banking facilities to handle international transactions. Formerly this business was largely in the hands of a few private banking houses, but the great increase in foreign business has led banks and trust companies to establish foreign departments. As the foregoing discussion shows, the chief business of the foreign department of a bank is to deal in foreign exchange in its various forms.

The larger banks and private banking houses have a foreign exchange manager who is a specialist in that business and who keeps in touch by telephone, wire and cable with money and exchange conditions both at home and abroad. Then there are the big dealers in exchange who do a regular exchange business like the banks, but who also

have men out on the street trading between large buyers and sellers of bills and keeping in touch with exporters, importers and other banks. Finally there is a very large number of exchange brokers who bring buyer and seller together, charging a commission for the service.

125. Foreign operations of Federal reserve banks.—Under the Federal reserve system it is expected that both Federal reserve banks and member banks will have greatly improved facilities for engaging in foreign exchange and for promoting international trade. In the section of the Act relating to open market operations, Federal reserve banks are authorized to "purchase and sell in the open market cable transfers and bankers' acceptances and bills of exchange of the kinds and maturities made eligible for rediscount, with or without the indorsement of a member bank." The right to deal in cables, which are orders for the immediate delivery of gold, will give to the reserve banks a considerable degree of control over the international flow of gold.

Any member bank may accept drafts or bills of exchange drawn upon it and growing out of the export and import of goods having not more than six months to run. Federal reserve banks are permitted to discount such acceptances when indorsed by at least one member bank and when within three months of maturity. They may also buy from member banks and sell commercial bills of exchange; they may deal in gold coin or bullion at home or abroad, and in government bonds and certain types of state and municipal securities; and, finally, they may establish foreign agencies to deal in foreign bills of exchange arising out of actual commercial transactions. By these and other provisions of the Act of 1913 the management of foreign exchange operations will be greatly improved; exchange will be furnished at less cost to the business community; gold movements will be brought under more effective control; American banks will be given opportunity to compete for foreign business on even terms with European

banks; and American foreign trade will be afforded ample assistance.

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CHAPTER XVI

LOANS AND DISCOUNTS

126. Loans.—As stated in a previous chapter the chief business of the commercial bank is making loans through the purchase or discount of commercial paper. In exercising this function banks perform their most useful service to the business community and make the most profits for their stockholders. Attention has been drawn, also, to the close relation existing between loans or discounts and deposits. The bank's loanable funds come mainly from deposits and deposits arise largely from loans. These two important functions of the commercial bank are commonly associated in the term "discount and deposit."

In describing how a bank lends money, or more exactly, lends credit based upon its resources in money, it may be well to note the theoretical difference between loans and discounts. Banks discount paper for their customers; they buy the paper of others, commonly through the medium of note brokers. When a bank discounts the note of a customer his account is credited with the amount of the note less the "discount," that is, the interest or charge for the use of the bank's credit; the amount of the note purchased from an outsider, on the other hand, is paid for by check or draft, and at maturity the sum repaid will include the face of the note and interest. Though the latter transaction does not usually create a deposit in the bank buying the note, a deposit is created in some bank in which the check or draft is deposited. This explains in

part why "deposits" and "loans and discounts" so nearly keep pace in the statements of commercial banks.

Bank loans are of two kinds: (1) time loans and (2) demand or call loans. Call loans are subject to call at any time and are made mostly to brokers on collateral security such as stocks, bonds, warehouse receipts, and like evidences of property. Collateral is sometimes given with time loans also, especially when they are made on single-name paper. With respect to security or protection, loans may be divided into (1) those having only personal credit or security and (2) those with collateral security.

127. Discounts.—Time loans arise largely through the discount of notes running for thirty, sixty or ninety days. When a manufacturer or dealer sells goods on credit he may take in payment his customers' promissory notes for periods ranging from thirty days to several months. Now, the manufacturer must have funds with which to buy raw materials to replenish his stock and prepare for the next season's output. He therefore takes these customers' notes, after indorsing them, to the bank for discount, thus getting the use of the proceeds at once. His indorsement makes him responsible for the amount of each note if the maker should fail to pay it at maturity. This form of note is known as "double-name" paper and when it represents, as in this case, an actual business transaction it is regarded very highly by commercial banks as a basis for advancing funds.

Changed business methods have made the use of the promissory note as between buyer and seller less common than in former years. Instead of giving a note for his purchase of goods the buyer is charged on the books of the seller and remits at a specified time. Relatively there are not so many "bills receivable," as these notes are called by the banks, and more "accounts receivable." But the seller must have funds with which to renew his stock and meet the current expenses of his business. He therefore offers to the bank his own note for discount, or it may be that he puts his notes in the hands of a note broker

for sale. This is known as "single-name" paper and, of course, is not as highly regarded by the banks as double-name paper. If the borrower has good credit, that is, if he has the reputation of being willing and able to meet his obligations, the bank will advance him money on his own note. If, however, the borrower's credit is not strong, the bank may require him to secure the indorsement of some other person or firm of good financial standing, thus making the note double-name paper. This is usually known as "indorsed" or "accommodation" paper. The indorser who thus accommodates a friend or business associate makes himself absolutely liable for the amount of the note even though he may have received no value or consideration in the transaction.

Single-name paper arises, also, from the growing use of trade or cash discounts. Large buyers can generally get better terms by paying cash than by giving their notes. A jobber or a department store may have an opportunity to purchase a large stock of goods from a manufacturer at a reduction of, say, 20 per cent for cash. If he can borrow the sum needed from his bank on his own note for three to six months at a rate of 5 or 6 per cent, with the prospect of reselling the goods within that time, he will realize a handsome profit.

128. How loans are made.—The process of discounting or of making a loan varies with different banks. In some banks no loans of large amounts are made until they are approved by the board of directors or a finance committee of their number. In some smaller banks large discretion is intrusted to the president or vice-president or even the cashier in making loans, but in the last analysis the board of directors is responsible for all loans. The care with which the directors manage this, the most important function of the commercial bank, will largely determine its success and reputation.

To illustrate the steps involved in making a loan, let us suppose that a merchant desiring a loan offers the bank for discount his own single-name note for $5,000 drawn

at ninety days. This application, along with similar applications from other customers of the bank, is entered in an "offering book," with the name of the maker of the paper and that of the indorsers, if any, the due date, amount, and rate of discount. The application is referred to the credit department which reports upon the financial standing and credit of the applicant and the condition of his account. Many banks now require all borrowers to submit a "borrower's statement" on uniform blanks giving a detailed statement of their assets and liabilities. At the regular meeting of the board of directors or of the finance committee, which in the large city bank may be daily, these applications for loans are considered. The first thing to be considered is the condition of the bank's funds, its loan account and its reserve. National banks are forbidden to lend more than 10 per cent of their capital and surplus to any one borrower. While banks depend mainly upon deposits for loanable funds, they must maintain a certain cash reserve against these deposits at all times. Whenever the bank's reserve of lawful money falls below the prescribed minimum it may not make any new loans or discounts, except by discounting or buying sight bills of exchange. In most of the states similar limitations are imposed by law upon the loans and reserves of the state banks. If the bank has sufficient funds to supply all applicants and they are regarded as desirable by the board or committee, the applications for loans may be passed upon quickly. In some banks the objection of a single director to an applicant's request for a loan is sufficient to cause its rejection; in others the majority rule applies.

It sometimes happens that the applications for loans exceed the available loaning funds of the banks. How, then, does the bank choose its loans? Naturally, preference is given to the depositor who has a large and steady balance. His account is most profitable to the bank, so he should be shown a preference when he needs a loan. As between several such customers, the bank will accept the strongest offer, the one backed by the soundest security

or credit. The application of a depositor, even though his account is comparatively small and unprofitable, will generally be preferred to that of an outsider. Sometimes when money is scarce and there is a strong demand from borrowers, the preference in loans will be shown to the applicant who is willing to pay the highest rate of interest, provided his security is ample.

After an application for a loan has been approved by the board or proper officer, the paper goes to the discount clerk and the depositor's account is credited with the amount of the note less the discount. The clerk keeps a "discount register" which contains a record of all notes discounted, the names of makers and indorsers, dates, amount of loan, interest rate, due date, etc. All discounted notes are recorded also in the "tickler," a book with its pages consecutively dated so that the notes can be entered under the date of maturity. It is essential that a note shall be presented for payment on the day it is due; otherwise the indorsers are released from their liability as indorsers. The notes are "timed," that is, the date of maturity is calculated and noted on the face of the paper, and are then carefully filed in large bank-wallets arranged in the order of "due dates."

The method of collecting the notes when due depends upon the nature of the business. Most large city banks will have among their customers business houses or firms who borrow on bills receivable, in which case the notes will be payable in various cities throughout the country. The notes will be turned over to the collection clerk or corresponding clerk several days before maturity to be sent out to the bank's correspondents for collection. The practice is growing of making all discounted notes payable at some bank. The note teller usually attends to the collection of notes payable in the city. He sends out the maturing notes by messenger to the banks where the notes are made payable. The regular customer of the bank who has a note due on a certain day will make sure that his account is sufficient to cover it. Generally he draws his

check for the amount due payable to the order of the bank and it is charged to his account. Sometimes customers have an understanding with the bank that their notes when presented for payment shall be paid in the same way as their checks. This practice is generally undesirable as it opens the door to possible forgery or alteration of the note.

129. Collateral security.—By collateral security is meant stocks, bonds, and other evidences of property deposited by the borrower to secure a loan made to him by the bank. Such securities are deposited as a pledge or guarantee that the loan will be repaid at maturity; if not paid the securities may be sold to reimburse the lender. Collateral loans though made generally to brokers on such security as stocks are made also to merchants and commercial houses, and all kinds of collateral are offered. They may be made on "time," running for thirty days to several months, or on "call," that is, subject to payment on demand. The various forms of collateral offered to secure bank loans may be roughly grouped into three divisions: stocks and bonds, merchandise, and real estate. Some of the more important types of collateral loans may now be briefly considered.

Sometimes a merchant, instead of discounting the notes he receives in the course of business, may prefer to offer his own note to the bank for discount, pledging the "bills receivable" as collateral. If any of the bills thus pledged fall due during the term of the loan they must be "taken up" and replaced with other security or a corresponding part of the loan must be paid.

Assigned accounts are sometimes used as collateral to loans when business houses cannot secure their customers' notes for goods sold. The practice is to select some of the larger and better accounts receivable and assign them to the bank from which the loan is sought, with the understanding that the bank is to receive all payments on account and apply all receipts to the reduction of the loan, returning any surplus thus received above the amount of the loan to the borrower. This kind of collateral security is not held in high esteem generally among banks. It in-

volves a rigid investigation of the financial standing of every account assigned to the bank, as well as considerable work in the handling of the loan and the collection of the payments. Furthermore, borrowers who resort to loans on this kind of security have in many cases exhausted

$5000 00/XX PITTSBURGH, PA. Aug 31st 1914

Four months after date the UNDERSIGNED, for value received, hereby promise to pay to the order of Guinard Bro at the MELLON NATIONAL BANK, Five thousand Bro XX DOLLARS,

, in CURRENT FUNDS, without defalcation, and PLEDGE herewith, as collateral security for the payment of this note, as well as for the payment of all other INDEBTEDNESS or LIABILITY of the undersigned to the holder hereof, whether absolute or contingent, as maker or endorser, drawer or acceptor, now existing, or which may hereafter be contracted or incurred, the following described property, viz:

200 Shs N. Y. Stk Exchange

of the market value of $ and should either said market or the actual value decline, the undersigned further agree, without notice or demand, to maintain at all times an equivalent margin by partial payment hereon or in lieu thereof, at the option of the holder, by the pledge of additional securities satisfactory to the holder, and also hereby give a lien for the amount of all liability to the holder upon all the securities pledged now, or hereafter, and upon any funds in the hands of the holder.

Upon the failure of payment, or performance of the covenant for maintenance of margin, as herein agreed, or upon non-payment of any liability hereby secured, or in the event of the insolvency, bankruptcy or failure in business of the undersigned, this note and all other liabilities of the undersigned to the holder shall forthwith become and be due and payable, without demand or notice, and the undersigned hereby grant to the holder full power and authority to sell, assign and deliver, at any time and from time to time, without advertisement, notice or demand, the property hereby pledged or any of it or any additions thereto or substitutions therefor, at any Board of Brokers or Stock Exchange or at public or private sale, also the right to bid or purchase at any sale thereof (except private sale) and to become the absolute owner of said property, or any of it, free and clear of any trust or claim or right of redemption of the undersigned or assigns. In the event of a sale of said securities or any of them, the undersigned grant to the holder the right to apply the proceeds thereof (after deducting all cost or expenses of any kind for collection, sale and delivery) on account of this note and interest, or on account of any of the liabilities of the undersigned to the holder, whether the same be then due or not due, provided proper rebate be made for interest on liabilities not then due. Any surplus of sale over and above amount of all liabilities of the undersigned to the holder, with interest and all expenses, shall be paid to the undersigned or assigns.

It is further agreed that the holder may, at any time, without notice to the undersigned, sell or transfer this note and deliver same, together with the said collaterals, to the purchaser or transferee, and shall thereby be forever released and discharged from liability or responsibility for said collaterals.

Due

Address

C-26—M-G-6-10

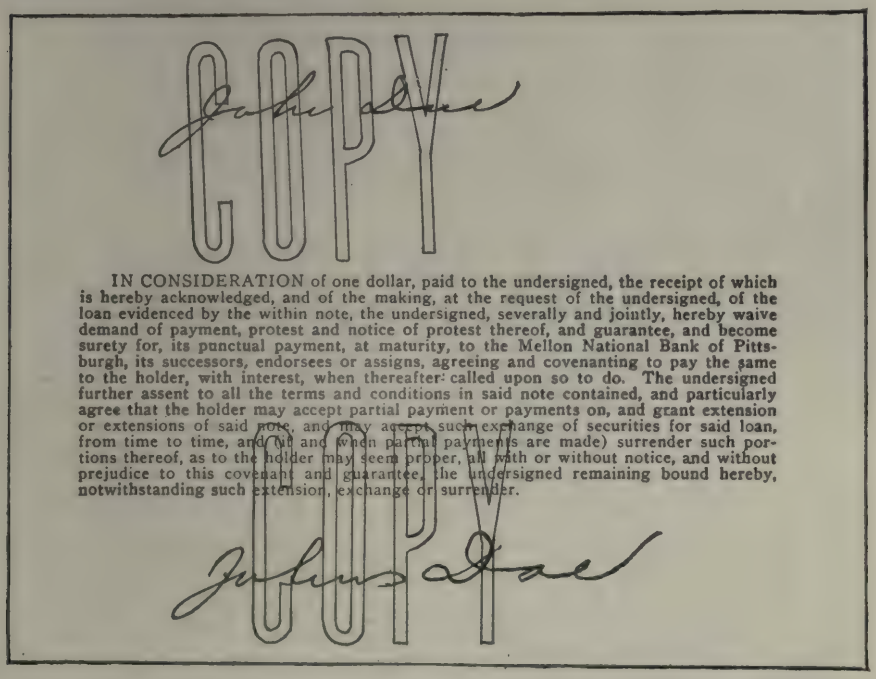
COPY

Paid date

COLLATERAL NOTE—FRONT

every other kind of borrowing asset, and, therefore, need watching.

Another form of collateral security which is extensively used, especially by traders on boards of trade and produce exchanges, is the warehouse receipt. These are receipts for goods such as grain, cotton or tobacco, stored in a warehouse under the regulation of a produce exchange or


COPY
IN CONSIDERATION of one dollar, paid to the undersigned, the receipt of which is hereby acknowledged, and of the making, at the request of the undersigned, of the loan evidenced by the within note, the undersigned, severally and jointly, hereby waive demand of payment, protest and notice of protest thereof, and guarantee, and become surety for, its punctual payment, at maturity, to the Mellon National Bank of Pittsburgh, its successors, endorsees or assigns, agreeing and covenanting to pay the same to the holder, with interest, when thereafter called upon so to do. The undersigned further assent to all the terms and conditions in said note contained, and particularly agree that the holder may accept partial payment or payments on, and grant extension or extensions of said note, and may accept such exchange of securities for said loan, from time to time, and (if and when partial payments are made) surrender such portions thereof, as to the holder may seem proper, all with or without notice, and without prejudice to this covenant and guarantee, the undersigned remaining bound hereby, notwithstanding such extension, exchange or surrender.
COPY

COLLATERAL NOTE—BACK

of the state authorities. They certify to the quantity and grade or kind of produce which will be delivered to the holder of the receipts when properly indorsed. The receipts are negotiable and when pledged for a loan at the bank are indorsed over to it, giving it a lien upon the goods. If the loan is not paid at maturity, the bank can take possession of the goods and sell them to satisfy the debt. If the borrower wishes to sell some of his cotton or wheat during the period of the loan he will generally

be required to reduce his loan by a corresponding amount or to substitute other receipts.

There has been a marked decline in recent years in the amount of trade paper offered for discount. The banks have therefore been compelled to look to other bases of security for their loans. The collateral loan based upon such security as stocks and bonds has come into wide use, but loaning upon merchandise has been regarded in some quarters as a kind of pawnbroking. Merchandise stored under adequate warehousing systems may, however, offer a perfectly safe form of collateral and this type of collateral is likely to have considerable development in the future. Already in the larger cities some of the banks in the wholesale districts carry large lines of loans on merchandise.

A bill of lading is a written acknowledgment by a railroad or other carrier of the receipt of goods for transportation. Since it is negotiable, and represents actual property, the bill of lading is a very safe kind of security. These bills are used extensively in connection with bills of exchange or drafts which they serve to secure. For instance, A, of New York, sells a bill of goods to B, of Chicago, subject to draft at thirty days. A attaches the bill of lading given to him by the railroad when he ships the goods, to the draft drawn either in his own favor or in favor of his bank and takes them to the bank. The bank forwards the draft with the bill of lading to its agent or correspondent in Chicago, who presents the draft to B for acceptance. Upon being notified by the Chicago correspondent that B has accepted the draft, the New York bank advances the money to A. Possibly, A may get immediate use of the proceeds of the draft upon depositing it. Ordinarily the bank is safe in advancing the money to A, since it retains title to the bill of lading until its Chicago correspondent secures B's acceptance of the draft, which is his promise to pay in thirty days. B cannot, at least he should not, get possession of the goods without the bill of lading which the Chicago correspondent sur-

renders to him only after he has accepted the draft. The "acceptance" is in effect double-name paper, secured by actual merchandise the evidence of which, the bill of lading, has passed through the hands of the bank. At maturity the acceptance will be collected by the Chicago correspondent of the New York bank and forwarded probably in the form of a bank draft. If B fails to meet the acceptance at maturity, the bank can recover from A.

The bulk of the cotton crop and a considerable part of the grain crop and other products are financed in this way. A few years ago a New York bank reported the handling of bills of lading representing over one hundred different products. Recognizing the importance of this branch of the banking business, and the abuses and frauds attending the use of bills of lading, the American Bankers' Association has for years tried to secure national legislation to protect banks against losses in handling this class of security. Several states have enacted a uniform bill of lading law suggested by the Association.

Another form of collateral which is coming largely into use is the life insurance policy. The older policies in the straight life or endowment form were not desirable as collateral to a loan because the lender might have to keep up the premium payments and wait for years to get his money back. The modern policy with a cash surrender value is better suited for use as collateral. A bank can safely loan on such a policy up to its cash surrender value at the time, for it practically amounts to a demand certificate upon the insurance company. Moreover, as additional premiums are paid the margin of security constantly improves.

130. Loans on real estate.—Prior to the enactment of the Federal Reserve Act in 1913, national banks were prohibited from loaning on real estate, though state banks in most of the states are permitted to do so under certain limitations. National banks may, however, take real estate mortgaged or sold to it to secure debts previously con-

tracted or due to them. Even then they are required to dispose of such real estate within five years.

The reason for this prohibition upon national banks, and the restrictions found in most of the state laws upon the proportion of a state bank's assets which may be loaned upon real estate, may be found in the disastrous experiences of banks prior to 1863 when real estate security was fluctuating and uncertain and heavy losses were incurred in lending on this seemingly solid basis.[1] It is a sound principle and policy of commercial banking that the assets shall be kept "fluid." Since most of a bank's obligations are payable on demand it is necessary that the securities it holds shall be readily convertible into money. Commercial paper arising from actual business transactions and having from thirty days to four months to run is of this nature. Such paper, maturing constantly from day to day and being paid or renewed for similar short periods at the option of the bank, gives to the bank close control over its funds. Real estate, on the other hand, is not a "quick" asset, but often a very "slow" asset. A mortgage upon real estate may be perfectly good security, but it cannot be turned into money immediately in case of an emergency. Personal securities and most of the forms of collateral security previously described can be quickly assigned and realized upon, but the transfer of real estate is usually attended with some delay. In the case of savings banks, trust companies and insurance companies there is not the same need for keeping the assets in a convertible form; indeed it is rather desirable that a considerable part of their investments shall be more or less permanent; real estate loans, therefore, are well suited to their purpose.

In the past, conservative bankers have regarded the restrictions placed by law upon real-estate loans as wise and salutary. In recent years, however, there has been a persistent demand, mainly in the agricultural sections of the West and the South, where land and its products constitute the chief wealth, for more liberal laws regarding

[1] Bolles: Money, Banking and Finance, p. 118.

loans on farm lands. It is urged that a farm mortgage, if carefully selected, is the best kind of security; that state banks, savings banks and trust companies are authorized to make such loans, and that national banks should be given the same privilege. More and more, however, commercial banks are tending to accumulate savings or time deposits. With proper restrictions a portion of such funds may safely and advantageously be loaned upon the security of farm property. This has been recognized by the Federal Reserve Act which provides that a national bank not situated in a central reserve city may make loans, limited to five years, on improved and unincumbered farm lands within its Federal reserve district up to 50 per cent of the value of the land. But no bank may loan more than 25 per cent of its capital and surplus or more than one-third of its time deposits in this way. The Act also provides for the rediscount of notes, bills and drafts drawn or issued for agricultural purposes or based on live stock and having a maturity not exceeding six months.

131. Rediscounts.—In this country rediscounting has never been a feature of banking practice to any such extent as in Europe. Indeed it has generally been looked upon as bad banking and an evidence of weakness on the part of banks resorting to it. Country banks, especially in the South, have resorted to some extent to their depository banks in the large cities for accommodation either by way of rediscount or of loans on bills receivable or securities, but such dealings constitute a very small proportion of the total amount of loans and discounts. In Europe, on the contrary, rediscounting is universal and constitutes an important part of the business of the great central banks, especially those of France and Germany.

One reason for the contrast between American and European practice is found in the fact that in this country the single-name promissory note has become the familiar commercial instrument, while the bill of exchange is used abroad. When a customer's note is discounted at the bank it is practically a "dead" asset, that is, it cannot be con-

verted into cash before maturity. It is quite different with bills of exchange or acceptances as used in Europe. These bills, drawn by a customer upon his bank and accepted by the latter, become salable anywhere and are freely discounted in the open market. They pass from one lender to another, thus acquiring additional indorsements, and eventually find their way into one of the principal banks. The Bank of France in Paris and the Reichsbank in Berlin rediscount large volumes of these bills, partly as a matter of collection and transfer of funds, but also for the purpose of accommodating other banks with cash.

Under the construction of the national bank law national banks have not been permitted to accept time drafts, and the Federal Reserve Act does not lift the prohibition except for bills based upon foreign trade. The basic reason for the absence of rediscounting from our banking practice heretofore has been the lack of any central banking power holding available for the use of other banks a portion of the general reserve funds of the country. The Federal Reserve Act will in part cure this defect by providing for the pooling of a portion of the banking reserves of all member banks in a dozen regional banks in different sections of the country, where member banks finding it necessary to convert some of their assets into cash may do so by rediscounting good commercial or agricultural paper as defined in the Act.

132. Call loans.—The bulk of call loans, known also as demand loans, are made to stock exchange brokers on stock and bond security. As the name indicates, call loans are made subject to call at any time; the borrower as well as the lender has the right to terminate the loan at any time. Business men generally borrow on time loans where both the rate of interest and the time are fixed in advance. They could not afford to run the risk of having their loan called at the will of the bank because the kind of collateral they offer for loans cannot be converted instantly into money. The stock broker, if his loan is called, can sell the stock pledged at once or borrow from another bank

and so pay the first lender. In practice call loans are one-day loans, that is, they are subject to call the next day. The practice of Wall Street is to give the broker until 2:15 P.M. to pay a loan, and no loans are called after 1:00 P.M. Calls are made in the morning, so that the broker is given several hours in which to arrange for the payment of the loan. Many banks give the borrower more than a day's notice, sometimes a week or longer. Many call loans run for weeks or months without being called. The bank is just as eager to continue a loan, if the security is ample and the market rate of money steady, as is the borrower. Yet if the demand for money becomes pressing, or if the bank fears the borrower's solvency, it will not hesitate to call a loan instantly to protect itself from loss.

While the rate of interest on call loans fluctuates considerably from time to time, it is lower as a rule than on time loans. Why, then, do banks lend so much in this way? The answer is that banks believe they have a more complete command of their funds. The chief source of a bank's loaning resources is the deposits of its customers, and since these are for the most part subject to call or check, it is essential to keep a considerable amount of the deposits loaned in such a way that the bank can recall them at short notice.

The banks of New York City, which is the center of banking in this country, have had a very good reason for loaning on call. Every national bank is required to keep a cash reserve to meet the demands of depositors. Previous to the passage of the Federal Reserve Act the law required banks in reserve cities to keep a reserve of 25 per cent, and in the three central reserve cities, New York, Chicago and St. Louis, this fund had to be kept in their own vaults. National banks in the other reserve cities were required to keep only one-half of their reserves at home, and country banks, whose reserve requirement was 15 per cent, might keep 9 per cent in a reserve city. The result was that banks all over the country kept a considerable part of their reserves in New York, partly to meet

the demand for New York "exchange" from their customers, and partly because the New York banks are willing to pay a low rate of interest, generally about two per cent, on these "bankers' balances," as they are called. If these balances were not thus deposited they would lie idle in the vaults of the country banks possibly for months at a time. The New York banks, on the other hand, must keep these bankers' deposits, belonging to hundreds of banks and bankers throughout the country, and subject to demand at any time, in loans that can promptly be recalled.

This practice in the past of concentrating reserves in New York constituted one of the fundamental weaknesses of our banking system. The Federal Reserve Act, which provides a reliable rediscount market where banks can always realize on the high-grade paper they have discounted when they need funds to meet an emergency, will bring far-reaching changes. Since New York is the financial center of the country, and is likely to hold that position for many years to come, it is probable that banks will continue to keep some part of their reserves in that city to meet the demand for New York exchange. Since, however, every member bank is required to keep part of its reserve in a Federal reserve bank, and since each of the cities having such a bank will be a par exchange point, the necessity of keeping funds in New York for this purpose will diminish. On the other hand, if the Federal reserve banks do not pay interest on the deposits of member banks, the latter will be prone to keep only the minimum reserve required in the reserve bank and to send unemployed funds to the great financial centers as heretofore; and, in any case, banks and trust companies that are not members of the new system are likely to continue this practice. The New York banks will not be under the same necessity of resorting to call loans in order to keep their assets fluid if they are members of the Federal reserve system, since they, in common with all other member banks, can always procure funds by rediscounting their commercial paper at the Federal reserve banks. The

stock broker, however, will continue to need funds to carry on his business, and though he may have to pay higher rates for accommodations under the new system, the call loan modified, perhaps, in some particulars is likely to continue as an important element in our banking mechanism.

133. Call loans and the Stock Exchange.—It has been estimated that from 60 to 70 per cent of the reserve money carried by big banks in New York and Chicago has been loaned to brokers on stocks and bonds. A typical illustration will serve to show how collateral loans are made in Wall Street. A speculator goes to a stock broker and asks him to buy for him 100 shares of New York Central stock at par. The broker agrees to execute this order on a ten per cent margin, that is, the customer puts up only $1,000 and the broker provides the balance, $9,000. Now the broker may not have this much money, so he must borrow it from the bank, depositing the stock as security. On such security the bank will advance about 80 per cent of the market price of the stock, that is, $7,200. But to use the stock as collateral he must first buy it and pay the purchase price. How does he get the money? The broker has a balance at the bank of, say, $2,000, but he must have the use of $9,000 for a short time. He draws his check for $9,000 in payment of the stock and sends it to the bank to be certified. Evidently the bank has over-certified to the extent of several thousand dollars and has in effect granted the broker a temporary loan, which, however, usually lasts just for the day.

Many Wall Street banks, especially trust companies, make a regular practice of certifying brokers' checks. Pratt, in his "Work of Wall Street," says: "Then, the bank stipulates, in entering upon an agreement of this kind with the broker, that while it will certify, say, to an amount of $1,000,000 on a net daily balance of $50,000, the broker must not frequently reach that limit. Moreover, he must make his deposits at the bank as frequently as he receives checks for payment for securities delivered. He cannot wait until nearly three o'clock and then make one

deposit for the day, but must deposit maybe six or seven times a day. The result is, that while the broker is receiving the benefit of large certifications in excess of his balance, at the same time he is at frequent intervals depositing other certified checks. Deposits and certifications thus go on simultaneously.''[1]

Over-certification is distinctly forbidden by the national banking act, but most cases of violation are more technical than actual. As soon as the broker gets his stock and arranges his loan he is able to meet every check he draws, and he is bound to maintain his average daily balance according to agreement with the bank. Pratt notes that, to avoid even the appearance of violating the law, the national banks and even the trust companies are withdrawing from this practice. Many of them make morning loans to brokers sufficient to meet their probable certifications for the day, taking the broker's single-name note. The Wall Street banks do not require from regular borrowers a new note every time a call loan is made. The broker signs a ''general loan and collateral agreement'' which covers new as well as existing call loans. This agreement gives the bank the right to sell the collateral in case the borrower fails to pay on call or to deposit additional collateral.

When a broker wants to make a call loan he sends his securities to the bank in an envelope, called the ''loan envelope.'' On the outside is written the borrower's name, the date, the rate, and an itemized list of the securities with their market prices on that day. If the bank approves of the securities, the cashier issues a check to the person bringing the envelope. The loan envelope is placed in a larger bank envelope on which is written the name of the borrower, the amount of the loan, and the rate. The collateral loan clerk makes out a loan card containing a full record of the loan with a list of the securities thus pledged. In the great Wall Street banks the loan clerk holds a very responsible position requiring keen and constant vigilance. He follows the fluctuations of the stock market closely by

[1] Pratt: Work of Wall Street, p. 270.

means of a ticker installed in a special room reserved for this use. He must see that the loans are properly protected by a fair margin, he must call loans when it is necessary, and attend to the disposing of the collateral if the broker fails to pay his loan.

134. Substitutions.—It frequently happens that the borrower needs some of the collateral which the bank is holding in order to make delivery of the stock he has sold on the exchange. He is permitted to withdraw the stocks needed if he substitutes other securities of equal value and desirability. During the panic of May 9, 1901, there were eleven substitutions in one loan.[1] The banks prefer to loan on mixed collateral rather than on one kind of stock or bond, for if they are compelled to sell the collateral they can get better returns on selling small lots of several securities than on a large block of one kind of security. The broker who wants to borrow $100,000 will be required to put up about $120,000 in perhaps five or seven kinds of stock. The best collateral are the stocks and bonds of standard railway companies. The stocks of some industrial companies are equally acceptable. Generally, however, banks will not make a loan on industrial collateral alone. Government bonds, of course, are the very highest class of collateral, requiring little or no margin, and the securities of most states and municipalities have very high rank as collateral.

135. Interest rates.—The interest rate on call loans fluctuates considerably from time to time. The rate is made on the Stock Exchange and is determined by the demand and supply of loanable funds in the money market. The prevailing rate on a call loan applies each day until the loan is paid or called. If, during the course of a loan, money rates advance, the borrower's rate is "marked up"; if, on the other hand, there is a decline in the money rate, the broker gets the benefit of it.

The bulk of call loans in Wall Street are made through "money brokers" who act as middlemen between lenders

[1] Pratt: Work of Wall Street, p. 287.

and borrowers. There is a regular place in the Stock Exchange for effecting loans, and certain members make this their exclusive business, offering money just like a stock. If a bank finds after the morning exchange at the Clearing House that it has a good balance of cash, it will call one of the money brokers and tell him to lend $500,000 or whatever amount it can loan that day.

When money is plentiful, call rates range from 1 to 3 per cent, and the money market is said to be "easy"; at 6 to 8 per cent the market is "firm"; and when it goes above that it is "stringent." In times of panic the rate has gone above 100 per cent. In many of the states lenders cannot charge more than the legal rate of interest, usually 6 per cent. Under the law of New York State, however, the banker can charge for call loans above $5,000 any rate the borrower is willing to pay.

As noted elsewhere, the new Federal reserve system is likely to reduce the volume of money available for stock exchange operations and so to increase the interest rate. It is probable, however, that money rates will be subject to less violent and frequent fluctuations.

136. The weekly bank statement.—Because of the close connection between brokers and the banks every broker and operator is vitally interested in the condition of the money market. At times the stock market asserts its independence and advances in spite of high rates for loans, but as a rule a shortage in the supply of loanable funds at the banks leads to a general calling of loans and a consequent check upon stock speculation. Brokers as well as bankers are anxious, therefore, to know from time to time the real situation of all the banks in the community. This information is furnished in the form of the weekly bank statement.

In New York the Clearing House issues such a statement every Saturday at twelve o'clock, and in other cities similar statements are issued once a week. The central banks of Europe also issue weekly statements. The Bank of England's statement, issued on Thursday, is carefully watched

by the brokers in the large cities of this country, as it is an index of money market conditions in the world's greatest financial center. The Federal Reserve Act provides that the Federal Reserve Board shall publish a weekly statement showing the condition of each Federal reserve bank and a consolidated statement for all Federal reserve banks. These statements will show in detail the assets and liabilities of the Federal reserve banks, single and combined, and will furnish full information regarding the character of the money held as reserve and the amount, nature and maturities of the paper and other investments owned or held by Federal reserve banks.

The weekly bank statement of the New York Clearing House gives the condition of all the member banks, showing the average amount of loans and discounts, specie, legal tender notes, deposits and circulation, and the gains or losses in each item as compared with the preceding week. This statement of the condition of the banks in the most important financial center of the country is regarded as a fair index of the condition of the money market. The accuracy of the New York bank statement is somewhat impaired by the system of weekly averages used. The condition of the banks as presented in the Saturday statement is the average for the week, which may be either better or worse than the condition on that day. The actual condition, as well as the average, is now published.

While the general bank statement is of interest to most brokers as reflecting the condition of the banks and their ability to lend, they examine carefully the detailed statement which appears later than the general summary, and of course they will be especially interested in the condition of those particular banks with which they do business. The reserve of one bank may be well above the legal requirement, while another bank may be below that limit, and so must curtail its loans.

137. Commercial paper and the note broker.—We have already noted the technical difference between loans and discounts, namely, that banks discount paper for their

STATEMENT OF THE

ASSOCIATED BANKS OF BOSTON

As returned to the Clearing House, for the week ending Saturday, July 25, 1914.

	BANKS.	CAPITAL.	LOANS.	CIRCULATION.	INDIVIDUAL DEPOSITS	DUE TO OTHER BANKS	UNITED STATES DEPOSITS	DUE FROM RESERVE AGENTS.	EXCHANGES FOR CLEARING HOUSE	DUE FROM BANKS OTHER THAN RESERVE AGENTS	FIVE PER CENT FUND	LEGAL TENDERS.	SPECIE.	BANKS	
2	National Union	1,000,000	9,430,000	385,000	7,900,000	2,978,000	62,000	1,491,000	724,000	673,000	20,000	66,000	1,368,000	National Union	2
3	Old Boston National	900,000	2,870,000	47,000	2,593,000	2,000		391,000	257,000	58,000	2,500	18,000	332,000	Old Boston National	3
12	Fourth-Atlantic Nat'l	1,500,000	11,985,000	1,104,000	12,316,000	3,234,000	110,000	1,991,000	714,000	1,054,000	55,750	781,000	896,000	Fourth-Atlantic Nat'l	12
13	Merchants National	3,000,000	31,947,000	1,424,000	23,092,000	15,906,000	222,000	4,389,000	2,498,000	4,302,000	73,500	908,000	2,974,000	Merchants National	13
17	Second National	2,000,000	21,979,000	196,000	26,133,000	4,169,000	99,000	4,384,000	2,233,000	1,888,000	10,000	1,738,000	3,382,000	Second National	17
20	National Shawmut	10,000,000	79,070,000	3,496,000	58,524,000	32,780,000	777,000	11,929,000	4,938,000	8,562,000	178,250	900,000	7,919,000	National Shawmut	20
25	Webster and Atlas Nat'l	1,000,000	5,806,000	50,000	4,599,000	601,000	48,000	645,000	171,000	275,000	2,500	26,000	595,000	Webster and Atlas Nat'l	25
32	Boylston National	700,000	3,574,000	278,000	3,299,000	220,000	20,000	420,000	109,000	227,000	14,000	43,000	393,000	Boylston National	32
39	First National	5,000,000	67,765,000	1,838,000	49,720,000	33,102,000	454,000	10,958,000	3,088,000	8,917,000	100,000	700,000	8,891,000	First National	39
46	National Security	250,000	2,539,000	248,000	1,667,000	193,000		259,000	51,000	292,000	12,500	161,000	35,000	National Security	46
53	Winthrop National	300,000	3,415,000	239,000	2,475,000	696,000	54,000	361,000	91,000	69,000	12,500	119,000	256,000	Winthrop National	53
56	Commercial National	250,000	2,041,000	246,000	1,825,000	207,000		276,000	99,000	122,000	12,500	128,000	108,000	Commercial National	56
	AGGREGATES.	25,900,000	242,421,000	9,551,000	194,143,000	94,088,000	1,846,000	37,504,000	14,973,000	26,439,000	494,000	5,588,000	27,149,000		
			INC.	DEC.	INC	DEC.	INC.	DEC.	INC.	DEC.	SAME	INC.	INC.		
	COMPARISONS.		1,623,000	199,000	5,657,000	3,489,000	419,000	359,000	2,341,000	1,331,000		124,000	1,704,000		

Reserve excess in Boston, 3,117,143. Increase, 1,611,286. Excess with Reserve Agents, 7,884,143. Decrease, 575,714.

	EXCHANGES.	BALANCES.	COLLECTIONS FOREIGN DEPARTMENT.
Week ending July 25, 1914	163,111,967	15,898,325	8,429,379
Corresponding week 1913	134,189,597	5,751,381	9,190,971
Week ending July 18, 1914	159,099,536	11,340,799	10,052,397

RAND, AVERILL & CO., PRINTERS

WEEKLY BANK STATEMENT

regular customers and purchase the paper of other business houses not regular customers, usually through a third party known as a note broker. The note broker is a middleman between the lending bank and the business house in need of funds.

The business of note brokerage has undergone great changes in the last few years. Formerly the note broker simply acted as an agent for borrowing firms, placing their notes at the lowest possible rate of discount, and charging a commission for handling the paper. Now the note broker or dealer in commercial paper buys and sells outright the promissory notes of his clients; he has large capital, a complete credit department, agents in many cities, and a good line of credit himself at the banks. The business is largely controlled at present by a few large concerns whose operations extend over most of the United States. One authority states that to carry on the business to best advantage a capital of $1,000,000 is required, and that on this amount of capital a dealer in commercial paper can do an annual business of $100,000,000 at an expense of about one-tenth of one per cent.[1]

In many sections of the country interest rates fluctuate widely at different seasons of the year in accordance with the demand for and the supply of loanable funds. For instance, in the fall of the year when the grain crops of the West must be moved, the demand for funds exceeds the supply at the local banks. After a few months the money expended for moving the crops flows back to these banks and they have a surplus of loanable funds. High money rates, therefore, are likely to prevail in the West and South during the fall months and low rates in the spring and summer. The dealer in commercial paper can take advantage of these fluctuations, buying paper bearing a high interest rate and selling it where the interest rate is lower.

But, it may be asked, why does a business firm sell its paper to a note broker rather than to its bank? Several

[1] Howard and Johnson: Money and Banking, p. 342.

inducements may be offered by the dealer in commercial paper. By selling commercial paper to the dealer, a firm may keep its borrowing credit at the bank in reserve in case of emergency. Then again the firm may want to borrow a larger amount than its bank would care to handle. The note broker has facilities for distributing the loan among many banks. Generally, banks require a borrower to maintain a balance of at least 20 per cent of his loans. He has actual use then of only $80 out of every $100 borrowed from the bank, which means that a 5 per cent loan actually costs the borrower over 6 per cent. By selling to the dealer he gets the full face value of the loan less the dealer's commission.

The purchase of commercial paper is advantageous to the banks as well as to business borrowers. It affords an outlet for the profitable investment of funds not needed to meet the demands of regular customers. The country banks especially are large buyers of commercial paper. These banks, as already noted, keep part of their required reserve with banks in the reserve cities, and often accumulate large balances at those seasons when the local demand for loans is light. Now the big city banks pay only about 2 per cent on these balances, whereas the rate for commercial paper may be 5 or 6 per cent. When the country bank accumulates a good balance it may instruct its New York correspondent to buy, say, $20,000 or $100,000 worth of commercial paper with the money the country bank has on deposit. Instead of keeping large balances with their city correspondents the country banks have tended in recent years to deal directly with the note brokers, though they seek the advice of the big city banks as to the credit and standing of the firms whose paper is offered to them.

Another advantage to the banker of buying commercial paper is that on such loans there will be no request for renewal. Many of the bank's regular customers expect to renew their notes again and again and they become chronic borrowers. But in the case of commercial paper there is

usually no thought of renewal; borrowers make it a point to protect their commercial paper at maturity, even if someone else has to go unpaid, for one default would probably injure the borrower's credit with the dealer.

The dealer in commercial paper does not indorse the notes he sells or become responsible for their payment at maturity. He simply guarantees their genuineness. However, the banks in buying paper place much dependence upon the dealer, whose success depends largely upon his reputation for handling only good paper. Dealers in commercial paper must, therefore, maintain highly efficient credit departments which investigate thoroughly the financial condition of every client. Few banks outside the large cities can afford such departments and they have to rely largely upon the information furnished by the note broker. Country banks in purchasing paper generally seek additional information from their city correspondents as to the credit and reliability of the issuer of the paper, and banks in different cities supply each other with similar information. The reputable note broker will not agree to handle the commercial paper of a client until after making a careful investigation of his financial condition. A financial statement is always required and this must frequently be revised. Usually the dealer will not buy paper unless the statement of the maker shows "quick assets" which include cash, merchandise, accounts and bills receivable, equal to at least twice the amount of liabilities.

Most note brokers have regular customers among the banks and trust companies to whom they offer the commercial paper. They issue weekly sheets containing the names of the makers of the notes, indorsers, if any, the character of their business, the amount of the notes, the interest rates, and the dates of maturity. Much of this paper runs for four to six months, and the amounts are seldom for less than $5,000. When the broker offers a note to a banker he usually sends with it a financial statement of the maker's affairs. The banker may take a batch of notes on a week's "option," that is, with the privilege

of returning any or all of them if he is not satisfied with the report or the general standing of the makers. The usual note broker's commission is one-fourth of 1 per cent, but, as already stated, brokers are now disposed to buy the paper outright, and their profit arises from the difference between what they pay the makers and what they get from the bankers to whom they sell the paper.

The practice of buying commercial paper through reputable dealers is attended by little risk, and the losses have been comparatively small. Some firms, however, have put out excessive amounts of paper and the banks have suffered losses through buying on unverified and misleading statements. The failure in 1914 of one of the largest dry goods jobbing houses in the country with numerous affiliated retail stores having over $30,000,000 of paper outstanding drew renewed attention to the need for properly safeguarding commercial paper. The revelations following this failure showed that in some instances the treasurers of the retail companies who signed the notes were employed in the office of the parent concern; that in some cases the notes were issued without the knowledge of the other officers or directors of the concern; and that commonly they were paid at maturity by the sale of new notes.

To safeguard commercial paper offered for sale in the general market there has been some demand for its registration in much the same way that stocks and bonds are registered before being listed on the stock exchanges. When a borrowing company's outstanding paper is thus registered with a banking house, and accompanied with statements of its general affairs, purchasers of such paper are in a better position to determine whether the company's borrowings are warranted by its capital and business. Since commercial paper is to furnish the basis of an elastic currency under the Federal reserve system, it has been proposed that the Federal reserve banks should provide the machinery for registration. The control of the Federal Reserve Board over the rediscount market would enable it to make the registration of commercial paper sold in

the open market practically compulsory. The Reserve Board could also act as a clearing house for the exchange of information among the several reserve banks regarding the amount of a borrower's paper outstanding.

The popularity of one-name commercial paper as an investment for bank funds will be materially affected by the decision of the Federal Reserve Board as to what constitutes commercial paper eligible for rediscount at the Federal reserve banks. The Act of 1913 provides that Federal reserve banks may discount for member banks, notes, drafts and bills of exchange arising out of actual commercial transactions and having at the time of discount a maturity of not more than ninety days. The Act specifically excludes from the rediscount privilege paper issued for the purpose of carrying or trading in stocks, bonds, or investment securities, except government securities. The Reserve Board has the right to define the character of the paper thus eligible for discount. If the Board decides to admit single-name paper to the privileges of rediscount, that method of borrowing may continue to grow as in the past; but if single-name paper be excluded from rediscount, there will probably be a partial return to the earlier practice of using double-name promissory notes.

138. The credit department.—The credit department is one of the most recent, yet most important in the organization of the modern commercial bank. In the large city bank having a great variety of customers and activities, it is indispensable, and even in the small country bank, credit information regarding its customers, carefully collected and filed for ready reference, is highly desirable. Formerly the cashier was supposed to be sufficiently informed upon the business standing and credit of all the bank's customers, but to-day the larger banks find it necessary to have highly organized credit departments in charge of a specialist whose chief or sole duty is to accumulate and make easily accessible credit information regarding all customers of the bank. Where loans are conservatively made on high-grade collateral security the question of credit

is not so important, but in the case of the discount or purchase of commercial paper resting upon personal credit the financial responsibility and character of the borrower is a matter of first importance.

The Trend Toward Personal Credit

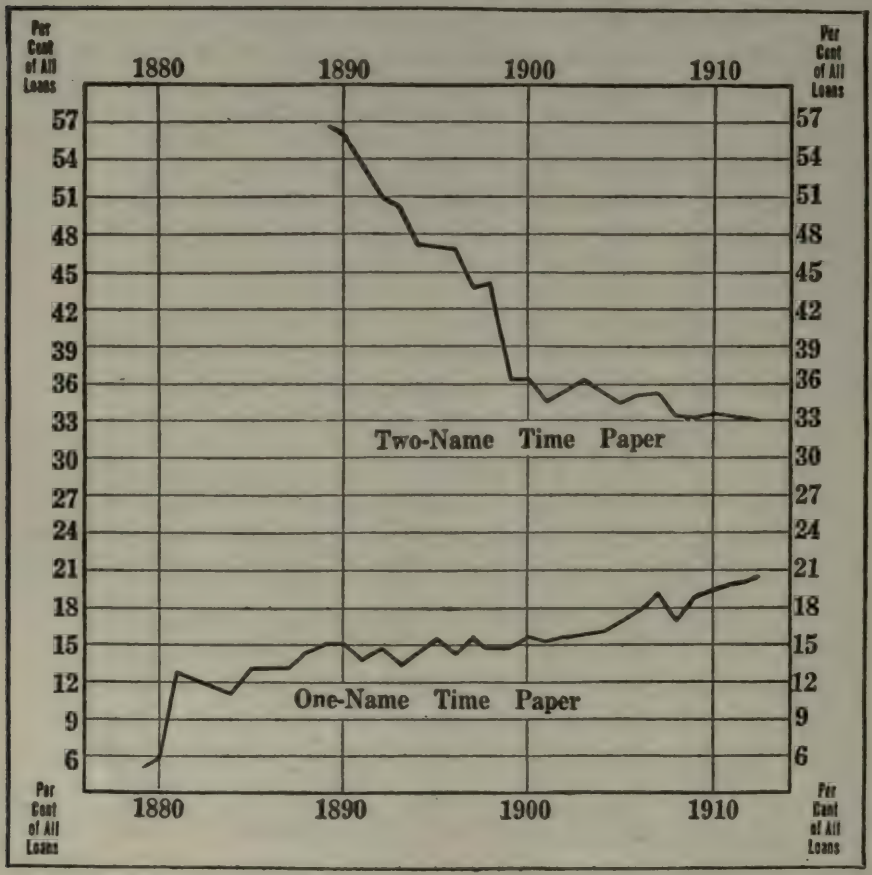


CHART SHOWING RELATIVE IMPORTANCE OF ONE-NAME AND TWO-NAME PAPER.

Courtesy of *The Annalist*

The credit man should keep complete records regarding mortgages, judgments, assignments, petitions in bankruptcy and like matters affecting the bank's customers. He should have available the financial history, the present

standing, and the habits of life and character of every borrower. He should also keep posted on the general conditions of business. In aiding the lending authorities of the bank to determine whether credit shall be extended to a

STANDARD FORM OF STATEMENT FOR CORPORATIONS AS ADOPTED BY NEW YORK STATE BANKERS ASSOCIATION

FROM Brown Bros & Co.

ADDRESS New York City

TO NATIONAL BANK OF COMMERCE IN NEW YORK

FOR THE PURPOSE OF PROCURING CREDIT FROM TIME TO TIME WITH YOU FOR OUR NEGOTIABLE PAPER OR OTHERWISE, WE FURNISH THE FOLLOWING AS A TRUE AND ACCURATE STATEMENT OF OUR FINANCIAL CONDITION ON January 1 1914 WHICH YOU ARE TO CONSIDER AS CONTINUING TO BE FULL AND ACCURATE UNTIL WE GIVE YOU WRITTEN NOTICE OF CHANGE

ASSETS		LIABILITIES	
CASH ON HAND	817 69	NOTES PAYABLE (LESS FOR MERCHANDISE)	
CASH IN THE FOLLOWING BANKS	201 50 00	NOTES PAYABLE (NEGOTIATED TO OUR BANK)	150 00 00
NAME OF BANK Fort Nat'l		NOTES PAYABLE (OTHERWISE SECURED) (Chattel Mortgage)	75 000 00
" " Bankers Trust Co		ACCOUNTS PAYABLE	76 578
" "		DEPOSITS OF MONEY WITH US AS FOLLOWS	
		BY A Agnew 2,500	
		BY C E Smith 12,200	
		BY P A Onon 5,300	
NOTES RECEIVABLE OF CUSTOMERS (NOT TRANSFERRED)	59 612 40	BY SUNDRY PERSONS	20 000 00
ACCOUNTS RECEIVABLE OF CUSTOMERS (NOT TRANSFERRED)	250 145 16		
NOTES AND ACCOUNTS RECEIVABLE OF OFFICERS (NOT TRANSFERRED)			
MERCHANDISE FINISHED (NOW VALUED AT Cost)	85 740 14		
" UNFINISHED (NOW VALUED)	60 258 75		
" RAW MATERIAL (NOW VALUED)	82 687 12		
LAND OWNED BY CORPORATION, USED FOR THIS BUSINESS	75 000 00	BONDED DEBT (DUE 1928, 5%)	150 000 00
BUILDINGS " " " " " "	150 000 00	MORTGAGE DEBT	
MACHINERY " " " " " "	212 460 27	CHATTEL MORTGAGES	
Investments	295 000 00		
Insurance prepaid	520 00		
		TOTAL LIABILITIES	337 754 32
		CAPITAL	800 000 00
		SURPLUS, INCLUDING UNDIVIDED PROFITS	169 817 21
TOTAL	$1307571 53	TOTAL	$1307571 53

CONTINGENT LIABILITY: NOTES RECEIVABLE OF CUSTOMERS DISCOUNTED OR SOLD AND NOT INCLUDED IN ASSETS ENUMERATED ABOVE 10 200 00

OTHER CONTINGENT LIABILITY —

WE HAVE NOT PLEDGED OR ASSIGNED ANY OF THE ABOVE ACCOUNTS RECEIVABLE; OUR ASSIGNED ACCOUNTS RECEIVABLE AMOUNT TO —

OTHER ASSETS USED AS COLLATERAL —

INSURANCE: ON MERCHANDISE 225,000 BUILDINGS $125,000 MACHINERY $175000 TOTAL INSURANCE 525 000 00

BUSINESS AND RESULTS: ANNUAL SALES FOR THE YEAR ENDED Jan 1 1914 OR FROM 190 TO 190 1600 520 00

GROSS PROFITS ON SALES FOR THE SAME PERIOD		480 156 00
EXPENSE OF CONDUCTING BUSINESS " " " "		336 109 00
NET PROFIT " " " "		144 046 80
OTHER INCOME, INCLUDING INVESTMENTS " " " "		17 400 00
COMBINED PROFIT " " " "		161 446 80
DIVIDENDS PAID FOR THE PERIOD Jan 1 1913 TO Jan 1 1914		48 000 00
BAD DEBTS FOR THE PERIOD " 190 TO " 190		121 10

CAPITAL: AUTHORIZED $1000000 PAR VALUE $100 PER SHARE

ISSUED $800000

BANK ACCOUNTS: WHERE KEPT OTHER THAN ABOVE —

MORTGAGES AND BONDS ON WHAT ASSETS A LIEN Plant (including land, buildings & machinery)

AVERAGE TERMS ON WHICH WE SELL 2% 10 net 30

AVERAGE TERMS ON WHICH WE BUY discounts when offered, or 30 da net

TIME OF YEAR WHEN NOTES AND ACCOUNTS RECEIVABLE OF CUSTOMERS ARE COLLECTED, ARE GENERALLY MAXIMUM Sept MINIMUM Jan

TIME OF YEAR WHEN STOCKS OF MERCHANDISE ON HAND ARE GENERALLY MAXIMUM Aug MINIMUM Dec

TIME OF YEAR WHEN LIABILITIES ARE MAXIMUM Sept MINIMUM Dec

(OVER)

BORROWER'S STATEMENT—FRONT

borrower and to what extent, the credit man should be able to present facts concerning the character of the business, its form of organization, its management and business methods, the extent of competition, the promptness with which bills are paid, the financial worth of the business, the extent of borrowing at other banks, business reputation among other people, etc.

The credit man obtains his information from various

STATEMENT: IS IT BASED ON ACTUAL INVENTORY? Yes IF SO, DATE Jan. 1, 1914

VERIFICATION: HAVE THE BOOKS BEEN AUDITED BY A CERTIFIED PUBLIC ACCOUNTANT? Yes IF SO, NAME AND DATE OF AUDIT Goodall, Hibbard & Myron, Jan. 1, 1914

BUSINESS: WHAT KIND OF BUSINESS DO YOU CONDUCT? Grocers

BOOKS: WHAT KIND OF BOOKS DO YOU KEEP? Cash, Departmental, Ledger, Stock Book, Merchandise Inventory, Invoices & Sales Slips

(PLEASE SIGN CORPORATION NAME) Brown & Jones Mfg Co

DATE SIGNED Jan. 2, 1914 BY L. W. Depman

PLEASE GIVE PARTICULARS OF EACH PARCEL OF REAL ESTATE

DESCRIPTION	STREET AND NUMBER	CITY OR TOWN AND STATE	TITLE IN NAME OF	ESTIMATED VALUE	MORTGAGES	EQUITY
Bldg. & Mchy.	81 River	N. Y. City	Co.	365000	150000	215000

Borrower's Statement—Back

sources, the chief source being the statements of the customers themselves. The practice is growing of requiring borrowers to make a full statement of their affairs when they apply for a loan. Uniform blanks have been adopted by the bank associations of several states. Some banks require applicants to make oath to their statement. In some of the states laws have been passed making it a criminal offence to obtain loans on false or misleading statements. Sometimes the banks require the statement to be certified by a public accountant. Separate forms are used for individual borrowers, for firms, for corporations, and for banks. Shorter forms

are sometimes used when minute details are not deemed necessary.

These statements call for detailed information regarding the resources and liabilities of the applicant, including such typical assets as: cash, merchandise in both the raw and manufactured form, bills receivable, accounts receivable, plant, machinery, equipment, real estate, franchises, treasury stock, etc.; and such liability items as bills payable, accounts payable, stocks, bonds, mortgages, depreciation, net worth, net earnings. The ratio of quick assets to the two important liability items—bills payable and open accounts—affords a rough basis for determining the commercial standing of the borrower. One dollar of indebtedness to a dollar and a half of quick assets is usually regarded as a safe proportion.

Other sources of information are the mercantile or credit agencies, the most important of which in this country are Dun's and Bradstreet's. It is the business of these credit agencies to collect and summarize credit information regarding all kinds of business concerns all over the country. Though the banks do not depend very largely upon these agency reports, they are valuable in suggesting credit information that might otherwise be overlooked. Such reports should always be supplemented by personal investigation.

The signed statements, agency reports, letters, memoranda, and credit information of all kinds are tabulated, analyzed, and filed in the credit department in readily available form. New statements are required from time to time as borrowers apply for new loans or as paper is offered for discount. In the case of regular borrowers banks may require statements only at regular intervals, for example, once, twice, or four times a year. In this way the banks will have after a time a series of statements from borrowers showing the changes in their business.

In the bank having a well-organized credit department every application for a loan or offer of commercial paper

is referred to the credit man. After investigation he prepares for the loaning officers a condensed statement showing the essential facts affecting the applicant's credit. Upon the basis of these facts mainly is determined the granting or refusing of credit accommodations by the bank.

139. Elements of credit.—In any analysis of credit, emphasis is always laid on four main elements—character, capacity, capital and collateral. It is not enough that a borrower shall be of undoubted integrity and honesty; the most reputable men sometimes fail in business because of lack of capacity or capital. Capacity without character and business probity may possibly secure temporary credit and business success, but there is always present an element of uncertainty. A borrower with plenty of capital but without character and capacity is likely to waste it or to turn it into unproductive channels, bringing discredit upon himself and distress to his associates. This holds true also of the borrower having collateral but lacking character and capacity.

"If the borrower have character and capacity," says a prominent banker, "you have a combination which will more than likely win out, one which will magnetically draw either capital or collateral, or both. We think there is hardly a line of trade in which, if character and tried capacity can be brought together, credit cannot be obtained for a start or capital attracted to the venture. . . . If the credit man be certain of both character and capacity in an established business, he will need to give but a passing notice to the statement, for with character behind the schedule it will have been made up honestly, and with capacity behind it the man did not deceive himself or you. It means that the statement speaks conservatism, and that he has both technical ability and ability to finance. The sales made in this country in the course of a year upon character and capacity, with capital a minor factor, would run into the hundreds of millions of dollars, and the percentage of loss entailed under good credit management has been very low."

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CHAPTER XVII

BANK SUPERVISION

140. Reports and examinations.—Every national bank is required to make to the Comptroller of the Currency at least five reports a year showing in detail its resources and liabilities. No regular dates are set for these reports; they are subject to the call of the Comptroller at his discretion. He may also call for additional special reports at any time if he deems it advisable. Blank forms are furnished to the banks by the Comptroller and these must be filled out properly and returned to his office within five days after notice, subject to a penalty of $100 for every day's delay. This report of condition must be sworn to by the president or cashier and attested by three directors.

A condensed form of the report must be published in a local newspaper, and a copy of this, cut from the paper and pasted upon the particular form furnished for the purpose, accompanied by the affidavit of the publisher, must be sent to the Comptroller. By means of these reports both the Comptroller's office and the public are kept informed of the condition of the national banks. The making of any false statement or report is a criminal offence.

National banks are also required to make a semi-annual report on dividends and earnings. This report must be made within ten days after the declaration of a dividend, and must state the amount of the dividend and the net earnings above this dividend. The banks also make a

semi-annual report of the amount of circulating notes outstanding on January 1 and July 1. These reports made to the Treasurer of the United States provide the basis for levying the tax upon the note issues of the banks. The tax on bank notes issued against 2 per cent government bonds is $\frac{1}{4}$ of 1 per cent each half-year, and on notes issued against other bonds $\frac{1}{2}$ of 1 per cent.

Most of the states now have a banking department and the banks, trust companies and savings banks organized under state law are required to make periodic reports of condition to the state superintendent of banking or other official. In a large number of states, reports are required four times a year, and statements must be published in the papers in much the same way as with national banks.

In most of the large cities the banks are required to make weekly statements of condition to the local clearing house association. In New York City the Clearing House requires all banks clearing through it, non-members as well as member banks, to send to the Clearing House before eleven o'clock on Saturday a statement of the bank's condition for the six preceding business days, giving the daily average of specie, legal tenders, deposits, circulation, and loans and discounts. From these statements the officials of the Clearing House make up the weekly bank statement. As stated elsewhere, this report is always looked for with interest as it indicates the scarcity or abundance of loanable funds. If the reserves are close to the legal limit or below it, it indicates a scarcity of loanable funds and a probable rise in money rates; if, on the other hand, there is a good surplus of reserve the rates for money are likely to be easy.

141. Bank examinations.—In addition to the reports and statements which banks are required to make they are subject to a variety of examinations as a precaution against negligence and fraud. National banks are examined periodically (at present twice a year) by examiners acting under the authority of the Comptroller of the Currency, and similar examinations of state banks are made by agents

of the superintendent of banking or other officers responsible for the supervision of banks under state laws.

The visit of the bank examiner comes at irregular intervals and without previous notice to the bank. The regular examinations cover the whole business of the bank, but special examinations may be made to check up the figures given in the report, to appraise the assets, or to scrutinize the work of a particular department. In making the examination the examiner will count the cash, examine the discounts and loans, scrutinize the securities and investments, examine the expense account, and make himself acquainted with the more important features of the bank's business, so as to determine whether the bank is being properly managed and is in a sound condition. The examiner sends in a report to the Comptroller of the Currency or to the head of the state banking department, as the case may be, and if the report shows that the bank is in an unsatisfactory condition in some particular, notice is sent to the bank with suggestions for correcting the defect.

For purposes of examination the country is divided into a number of districts containing a suitable number of banks the examination of which is intrusted to one examiner. Some of the larger cities form special districts. In order that an examiner shall not, by too long service, relax his vigilance, the plan has been adopted in the national bank system of rotating the examiners from one district to another. The efficiency of national bank examinations has been greatly improved in recent years. The national examiners meet several times a year for a confidential comparison of ideas and methods. In some states the national and state bank examiners coöperate by making examinations of national and state banks in the same city on the same day. In a few states the banking laws provide for calls on the same days as those of the Comptroller of the Currency. State bank examiners generally receive a fixed salary, but until recently the national bank examiners received their remuneration in fees, varying from $20 in the

case of banks with capital of less than $100,000 up to $75 where the capital exceeds $600,000. These amounts were assessed by the Comptroller and paid by the respective banks. The fee system is open to the objection that the examiner, being dependent for the amount of his remuneration on the number of banks he examines, is tempted to do his work hastily.

The Federal Reserve Act abolished the fee system and made other important changes in the matter of bank examinations. The old law provided for the examination of national banks "as often as shall be deemed necessary and proper"; now every member bank in the Federal reserve system must be examined at least twice a year, and oftener if necessary. The Federal Reserve Board is empowered to authorize examinations by the state authorities of state banks and trust companies, but it may at any time direct the holding of a special examination of such state institutions if they are members of the Federal reserve system. The expense of examination is to be assessed by the Comptroller of the Currency upon the banks examined, in proportion to assets or resources held by them at the time of their examination.

In addition to the examinations made by the Comptroller, every Federal reserve bank may, with the approval of the Federal reserve agent or of the Federal Reserve Board, provide for the special examination of member banks within its district. Provision is made, also, for the examination by the Federal Reserve Board at least once a year of each Federal reserve bank, and upon joint application of ten member banks the Federal Reserve Board is required to order a special examination of any Federal reserve bank. Congress, or any duly authorized committee of either House, is also authorized to examine the affairs of any such bank.

The antiquated fee system of compensating examiners is abolished and the Federal Reserve Board is given the power, upon the recommendation of the Comptroller, to fix the salaries of all examiners. To remove all temptation to partiality the Act provides that no member bank, or

any of its officers, directors, or employees shall make any loan or grant any annuity to a bank examiner under penalty of imprisonment not exceeding one year, or a fine of $5,000, or both, in addition to a fine equal to the sum loaned or gratuity given. Any examiner accepting a loan or gratuity from a bank examined by him shall be liable to imprisonment for not exceeding one year or a fine of not more than $5,000, or both, and may be fined a further sum equal to the loan or gratuity; and shall thereafter be disqualified from holding a position as national bank examiner.

142. Unofficial examinations.—The report of the national bank examiner is made to the Comptroller of the Currency and is seldom, if ever, seen by the officers of the bank. Yet it is the officers and directors who are held responsible if anything goes wrong with the bank. Most banks, at least those in the large cities, find it advisable, therefore, to have a thorough examination made by expert accountants or auditors employed by the stockholders or board of directors and reporting to them. The principal feature of the official examination is the appraisal of the bank's assets to determine its solvency. As a result of such examination the bank may be advised by the Comptroller or by the state banking department to reduce or "write off" some bad debt, but it seldom gets any suggestion for an improvement in its accounting system. The expert accountant, on the other hand, is not concerned primarily with the appraisal of assets; his duty is to ascertain and report the exact condition of the affairs of the bank. By so doing he paves the way for changes in the accounting system where it is necessary and for other improvements which will further safeguard the interests of stockholders and depositors.[1]

The Comptroller of the Currency for years has been urging the directors of national banks to supplement the work of the examiner with examinations by a committee of the directors, and he has submitted suggestions as

[1] Moxey: Practical Banking, p. 233.

to the points that such examinations should cover. Some banks have a system of internal examinations by committees made up from their own clerical force. Clerks are selected who have no part or responsibility in the work of the particular department to be scrutinized, and who carefully examine all the books, records and details of the department to ascertain how accurately and efficiently the work is being done. In order to keep the clerks constantly alert and up to their work some banks have a practice of shifting them from one division of the ledgers to another.

In several of the large cities the clearing house association employs independent examiners who periodically make searching examinations of the affairs of member banks.

143. Bank failures.—Banks may be closed either by voluntary retirement or by involuntary retirement or failure. Since the national bank act went into effect over 500 national banks have been placed in the hands of receivers and have had their affairs wound up. Sometimes it happens that the business of a bank dwindles and becomes unprofitable, and it is thought desirable to liquidate. A national bank may go into voluntary liquidation on a vote of the owners of two-thirds of the stock. Notice of the proposal to liquidate is certified to the Comptroller of the Currency. Notice must also be published for two months in a New York City newspaper and in one where the bank is located, calling upon all creditors to present their claims. When a national bank fails the Comptroller of the Currency is charged with the duty of closing its affairs. He appoints a receiver who takes possession of the records and assets and collects all debts due the bank.

Bank failures are due to a variety of causes—bad management in making loans; dishonest officials who have used the bank's funds for their own speculations; rumors of insolvency which start a "run" by frightened depositors; panics, affecting the whole country; or violation of the laws under which the banks operate. In the annual report of the Comptroller of the Currency for 1911, the following analysis of national bank failures was made: 60 per cent

of the failures were caused by violations of the banking laws; 23 per cent by injudicious banking; 13 per cent by shrinkage in values and general stringency in the money market; and 4 per cent resulted from the failure of large debtors and other minor causes. Criminal violations of the law caused 37 per cent of the failures, 23 per cent being caused by fraudulent management, 7 per cent by defalcations, and 7 per cent were wrecked by the cashier or other employee. Excessive loans caused 20 per cent of the failures, and heavy investments in real estate or mortgages about 3 per cent. Former Comptroller Ridgely once said: "The most frequent cause of bank troubles, in fact the almost invariable cause of bank failures, is the granting of credit far beyond the legal and prudent limits to the officers or to one concern or group of allied concerns generally owned and managed by the officers and directors of the bank, or in which they have, directly or indirectly, some large pecuniary interest."

One of the most common causes of closing is the impairment of the bank's capital by losses. If the examiner finds that by reason of bad loans the capital and surplus have been seriously impaired, the interests of the depositors may require that the business be taken out of the hands of those who have brought the bank to this dangerous condition. If it be a national bank, the Comptroller of the Currency appoints a receiver, who is usually a bank examiner. The receiver makes an inventory of the assets and liabilities. This may show that the bank is solvent and has only been temporarily embarrassed because of scarcity of cash. In the course of a few weeks or months, it may be possible to convert enough of the assets into cash to meet the demands of depositors, and the bank may then be opened again.

144. Liquidation.—If the bank is hopelessly insolvent the receiver proceeds to wind up its affairs, and in so doing he seeks to protect the claims of the depositors. All available assets are converted into cash, and if these are not sufficient to pay the creditors, the receiver of a national

bank may assess each stockholder in an amount not exceeding the par value of his stock.

In settling claims against the bank the United States Government is in a sense a preferred creditor. The circulating notes of national banks, which are promises to pay money to the holders, are protected by bonds deposited in the Treasury. The Comptroller sells enough of these bonds to pay off the failed bank's notes as they are presented. To the depositors of a failed bank the receiver issues as promptly as possible a "certificate of proof of claim," which certifies that the holder is a creditor of the bank to a certain amount. From time to time as the assets are realized upon by the receiver, "dividends" are paid to the depositors. The receiver's certificate issued to the depositor is usually negotiable and can be sold or discounted like a note. Loan agents are always on hand to buy up these claims, usually at a great discount. Sometimes other banks are willing to accept these certificates on deposit, giving the depositor immediate credit for, possibly, two-thirds of the amount represented by the certificate.

When state banks fail the procedure of liquidation is much the same as with national banks. Until recently, however, the receivers for failed state banks were appointed not by the banking department but by the courts. Frequently the receiver of a state bank or trust company is not a trained man but gets his appointment for political or personal reasons. Then, too, instead of receiving a fixed salary as a national bank receiver does, he gets a percentage of all the money handled. In many cases the fees thus received are very large. There is a growing feeling that the liquidation of state banks should be placed under the control of the bank supervisors.

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CHAPTER XVIII

SAVINGS BANKS

145. Functions.—The function and the methods of the savings bank are very different from those of the commercial bank. The latter, as we have seen, serves the business man who needs current funds or credit to carry on his business. The savings bank serves the man of small earnings and without capital by providing a safe place to keep his savings and an experienced agency for investing them so as to yield him an income.

The savings of the average wage-earner are usually not large enough to admit of his investing in bonds, mortgages, and other forms of investment open to the man of means, nor is the man of small income qualified by experience in such matters to select a safe and profitable investment. But the savings bank takes these small savings of scores of individuals, which collectively amount to very considerable sums, and invests them for the depositors in such ways as to insure safety and a fair return. It thus encourages among the masses habits of thrift and industry, and accumulates for productive uses money which otherwise would lie idle or be squandered in unwise expenditures. From the standpoint of the employment of funds also there is a wide difference between savings banks and commercial banks. The function of the savings bank is primarily that of investment, while the commercial bank makes advances to business concerns for current needs. The savings bank invests the depositor's savings to bring

profit to him; the commercial bank loans its credit to make profit for itself. The savings bank exists for the saver; the commercial bank for the borrower.

Savings banks are of two general kinds, mutual and stock. The early savings banks established in America were modeled after those of England and were of the mutual or trustee type. They were directed by a board of trustees who managed the affairs of the bank and in some cases actually did the clerical work without pay. In the mutual savings bank of to-day the trustees or directors serve from the same disinterested and philanthropic motives. It has no capital, no stockholders, and is operated for the exclusive benefit of the depositors, who receive all the profits over and above the expense of running the bank. The tendency in recent years, especially in the newer sections of the country, has been in favor of savings banks organized as stock corporations which aim to produce a profit to the stockholders as well as the customary interest to the depositors. Most stock savings banks transact both a commercial and a savings business, and some of them carry very few savings accounts.

The "guaranty savings banks," peculiar to New Hampshire, are a cross between the mutual and the stock types. They do not transact a commercial business, but they have "special deposits" which are virtually capital stock. They pay a certain stipulated rate of interest to general depositors and the surplus goes to the special depositors. The charters of these banks usually stipulate that the special deposits shall always equal at least ten per cent of the deposits. These special deposits are therefore in the nature of capital stock and constitute a kind of guaranty fund for the general depositors.[1]

The annual report (1913) of the Comptroller of the Currency tabulates 1,978 savings banks, of which 623 are mutual and 1,355 stock savings banks. The total deposits amount to $727,403,950 and the number of depositors 10,766,936, the average deposit account being $439.07.

[1] Kniffin: The Savings Bank and Its Practical Work, p. 60.

Mutual savings banks are confined chiefly to the manufacturing centers of New England and the Eastern States, there being only 23 such banks outside of that section. The distribution of the 1,355 stock savings banks is as follows: 9 in New Hampshire, known as guaranty savings banks; 44 in the Eastern States; 192 in the Southern States; 870 in the Middle Western States; 58 in the Western States; and 179 in the Pacific States. The average rate of interest paid to depositors in mutual savings banks in 1913 was 3.94 per cent; the average rate in stock savings banks ranged from 3.12 to 3.70 per cent.

146. Management.—The organization and management of a savings bank are much like those of the commercial bank. The control is in the hands of a board of directors or trustees composed of men chosen for their responsibility and high character. In the case of mutual savings banks the trustees fill vacancies in their own number, making the board a self-perpetuating body; in the stock savings bank the stockholders generally elect the directors. The directors choose the officers who are to manage the bank's affairs, invest the funds deposited, and semi-annually or quarterly declare the dividends and the rate of interest to be paid on deposits.

The officers of a large city savings bank consist of a president, one or more vice-presidents, a treasurer, a secretary with the necessary assistants, and possibly an auditor and counsel. In a small bank the executive duties may be performed by a single officer, known as the secretary and treasurer. The treasurer is the financial officer of the bank, having the custody and management of investments, subject to the direction of the board of directors, depositing funds in other banks, drawing checks upon them, collecting interest on investments, and receiving applications for loans. The secretary keeps the minutes and records of the board of trustees, attends to the correspondence, acts as general auditor and accountant for all departments, and has general charge of the bookkeeping of the bank. The clerical work is carried on by a paying teller, receiv-

ing teller, and such bookkeepers, clerks, messengers and assistants as the particular nature of the bank may require.

147. Deposits.—When a depositor comes to a savings bank to open an account his name is entered on a card or in a book, with his residence, place of birth, and other information useful in establishing identity, and he signs the card, if he can write; if not, he makes his mark. He receives a pass book bearing his name and a number. In making a deposit he lists the items on a ticket or slip and hands them to the receiving teller for entry in his pass book. In many cases the depositor is unable to make out the deposit ticket himself and the receiving teller prepares it for him. Most savings deposits are in the form of cash, but checks, interest coupons, dividend checks, money orders, and like items will generally be accepted by the bank for collection and be credited as soon as collected. Savings banks now quite commonly solicit accounts by mail. Remittances are sent by mail with the pass book; the bank enters the amount of deposit and returns the pass book with a letter of acknowledgment. As already stated, the savings bank is intended to serve the wage-earner and the man of small income, not the business man and the man of means. The latter can invest their own funds, and they are likely to withdraw their deposits in large sums, which may be embarrassing to the bank, as it keeps only a small amount of money on hand. Consequently, mutual savings banks generally fix a maximum amount which will be received from a single depositor. The maximum in Pennsylvania and in New Jersey is $5,000, and in some states it is as low as $1,000. This rule is frequently avoided by a depositor dividing his account and depositing various sums in the name of different members of his family.

148. Withdrawals.—When a depositor wishes to draw out money he takes his pass book to the paying teller's window and states the amount desired. Some banks have a blank form of draft which the depositor fills out, or the teller may fill it out for him, and the depositor signs it or makes his mark. Unless the depositor is well known to the teller

reference is made to the original application record to establish his identity and signature. The date and the amount drawn are entered in the pass book, which is then handed back with the money to the customer. In some banks a check is placed upon the clerks by having one clerk receive the withdrawal application and a clerk at another window pay out the money, the latter calling the depositor by name and asking him to state the amount drawn. When a depositor draws out his whole deposit the account is closed and the pass book is surrendered to the bank. The primary purpose of the savings bank is to collect the small and scattered savings of a community and to invest them in safe and profitable channels for the benefit of the depositors. It seeks to keep as large a proportion of its funds invested as is consistent with safety. It will therefore keep no more cash reserve than is necessary to meet current payments.

The investments of savings banks are carefully restricted by law and are usually long-term loans which cannot be converted quickly into cash. Savings banks therefore usually require notice some time in advance when a depositor wishes to withdraw money. Each bank makes its own rules as to the notice required. Many banks permit the withdrawal of small sums without any notice. Where notice is required it varies from ten days to three months, depending usually upon the amount to be withdrawn. The practice of requiring notice of withdrawal is beneficial to the depositor and almost essential to the bank. A depositor is often deterred from withdrawing his savings for some temporary or imaginary need by the notice rule. It also gives the bank time to realize on some of its investments and obtain cash to meet any unusual demand. Sometimes an idle rumor starts a "run" on a bank which subsides in a few days when the bank enforces the notice rule. More commonly, however, when a run starts, the bank tries to secure funds by borrowing from other banks and to allay the fears of its depositors by paying all demands made upon it. When frightened depositors find that they

can get their money they are generally satisfied to leave it on deposit.

149. Interest.—The accounting system of a savings bank is not materially different from that of other banks except in the matter of keeping the interest accounts of the depositors. Most banks compute interest at semi-annual, quarterly, or in some cases monthly periods. After the trustees declare the interest rate for the quarter or half-year, the amount is computed for each account. Generally interest is allowed only on the amount running undisturbed through the period. Deposits made after the beginning of a period will not bear interest until the next interest date, and withdrawals during the period forfeit the interest accrued since the last dividend. Some banks calculate interest from the first of each month succeeding the deposit, and even allow interest on deposits made within three, five or ten days after the dividend day. At the end of each dividend period the interest is entered in the ledgers in red ink, and if not drawn out it is added to the depositor's balance and begins to bear interest itself. The first time the pass book is presented after an interest period the accrued interest is entered in red ink. The rules or by-laws made by savings banks regarding deposits, withdrawals and interest are printed in the pass book, and unless unreasonable they form a contract between the depositor and the bank.

150. Investments.—The first consideration in the management of the savings bank and the money in its care is safety. In most states, therefore, the law places rigid limitations upon the investments of the bank. In a general way the investments of savings banks are confined to high grade bonds and first mortgages on real estate. In New York State, for example, loans upon real estate are limited to 50 per cent of the value of productive property and to 40 per cent in the of unproductive property. In recent years the laws of most states have been liberalized so as to permit savings banks to purchase railroad bonds, corporation bonds and stocks, bank stock, and even commercial paper. Quite generally

savings banks make loans on personal security and in the South and West commercial paper is probably their principal asset. Only in New York and Minnesota are savings banks forbidden to loan on personal security.[1] The business of managing the investment of the funds is in the immediate charge of the trustees or directors. Generally in the larger banks there is a finance committee which determines what securities shall be purchased, and another committee to examine real estate and determine what applications for loans on real estate shall be granted.

Savings banks are organized under the laws of the particular states where located, sometimes in accordance with a general corporation law, sometimes by special act of the legislature, but generally according to the provisions of special banking laws. They are usually subject to the inspection and supervision of the state banking department. In most states the process of organizing a savings bank is substantially similar to that of starting a commercial bank. In the New England and Eastern States where mutual savings banks mostly prevail, the regulation by the state is quite rigid, but in those states where stock savings banks are the usual type the laws are not so severe.

In recent years there has been a marked tendency toward the organization of savings departments by commercial banks and trust companies. The term "savings bank" as used in some of the states is misleading, as many so-called savings banks transact chiefly a commercial business. The advantage to a commercial bank of having a savings department through which large deposits of cash are drawn in is obvious. Generally the savings department is not separated from the other business of the bank except that the savings accounts are kept in a separate set of books and interest is credited to them at fixed periods. The funds are usually merged with the general funds of the bank and are used without distinction in making loans and discounts, purchasing commercial paper and other operations of commercial banking. Many believe that this prac-

[1] Kniffin: The Savings Bank and Its Practical Work, p. 83.

tice which subjects savings deposits to the uses and risks of commercial banking is dangerous.

151. Postal savings banks.—Nearly all the leading countries of the world now have a system of postal savings banks. Strictly speaking, they are not banks but agencies or adjuncts of the Government which, through its post office department, receives savings deposits, invests them in its own bonds usually, and returns to the depositors a nominal rate of interest. The Postal Savings Bank system of the United States began operations in 1911 after several years of agitation. The system is under the control of a board of trustees consisting of the Postmaster General, the Secretary of the Treasury, and the Attorney General. The law originally provided for the opening of a postal savings bank in each state, but the system has been extended so that there are now about 13,000 depositories where patrons may open accounts. According to the annual report of the Postmaster General for the fiscal year 1913, there were about 331,000 depositors with approximately $34,000,000 on deposit in the entire system.

Any person over ten years of age may make a deposit. Sums as low as one dollar may be deposited, but no person may deposit over $100 in any month or have a total balance of more than $500.[1] In foreign countries a pass book is issued to the depositor, but under our system he receives a certificate of deposit for each deposit. Withdrawals may be made at any time on demand. Deposits bear interest at 2 per cent, credited once a year.

The postal savings funds received at the various post offices are deposited in local banks, both state and national, which pay 2¼ per cent on them. Over 7,000 banks have qualified as depositories for these funds. They are required to furnish as security accepted bonds, and the deposits are distributed pro rata among them. Five per cent of the total deposits may be deposited in the United

[1] The Postmaster General recommends that this maximum be raised to $1,000, but that no interest be paid on a deposit exceeding that amount.—Annual Report, 1913, p. 52.

States Treasury as a reserve and 30 per cent may be invested by the trustees in government bonds. It is the intent of the act that the remaining 65 per cent shall be kept on deposit in the qualifying banks, though these deposits may be withdrawn for investment in bonds under the direction of the President.

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CHAPTER XIX

TRUST COMPANIES

152. Functions.—The trust company is a comparatively new type of banking institution and its functions are not yet clearly defined. The earliest trust companies were organized to carry on life, fidelity and title insurance and the granting of annuities, but their primary function has been to act as incorporated trustees, accepting and executing trusts of various kinds. In this capacity they serve as executors and administrators of estates, as custodians of funds or properties held in trust, and as guardians of minors. Prior to the Civil War the trust company attracted very little attention, but since that time, particularly since about 1875, the increase in the number and the variety of functions performed by trust companies has been marked. In connection with their duties as trustees these companies have secured from the legislatures additional powers authorizing them to carry on other more or less closely related lines of business, until now they undertake such a great variety of functions that they have been aptly called the "department stores of finance."

While it is not possible to draw a sharp line of division between the function of the trust company and that of the commercial bank, it may be said that the commercial bank deals in credit and handles active funds, thus aiding in the creation of wealth, while the trust company deals in capital and handles funds that are principally inactive, thus conserving existing wealth. More and more, however,

trust companies have assumed the functions of the commercial bank as well as those of the savings bank and have engaged in a great variety of financial activities. Many trust companies, including some of the most influential, have adhered to their original and essential function of acting as trustees; others make banking their main business; and still others specialize on the financial side. The general tendency in recent years seems to have been toward an expansion of their activities so as to include many or all of these functions.

In many trust companies the different kinds of work or activities are carried on by departments, as, for example, the trust, banking, bond and safe deposit departments. Some of these departments may be subdivided; thus, the banking department may be divided into savings bank and commercial departments; and the larger companies may have various other departments and divisions, such as mortgage, investment, transfer, real estate, title insurance and fidelity insurance. Generally where trust companies carry on both a trust and a banking business, the two departments are kept separate, each having its own records, clerks and handling of funds.

153. Individual trusts.—Trust companies execute a great variety of trusts for individuals under private agreement. A leading authority says: "These trusts come from many different classes of people—from active business men who have some special matters that they do not care to handle for themselves; from teachers, artists, doctors, clergymen, women and others who feel that their inexperience or lack of time makes it wise to shift financial affairs to other shoulders; from persons whose health requires that they live in other climates and leave their business cares behind; from absentee property owners; from the aged either too feeble to attend to active business or willing to take a well-earned rest; from persons planning to spend some time in travel and who must have a responsible agent to look after their affairs while away; and from others who, either from choice or from necessity, wish to avoid the care of their prop-

erty either temporarily or permanently. In such cases the trust company takes entire charge of the property, whether real or personal, or both, just as an individual acting in like capacity would do. It collects interest, coupons, dividends, annuities, pensions, and any other form of income, notes, accounts, bonds, mortgages, land contracts, etc.; if part of the property be real estate, it looks after repairs and improvements, sees that the property is kept rented, keeps up insurance, pays taxes, collects rents; it acts as attorney in fact, executes contracts, leases, deeds, etc. It remits or accumulates income, reinvests the principal, according to the terms of the contract."[1]

In most of the states trust companies are authorized to act as executor, administrator, or trustee, by being named as such in a will, or by appointment of the courts, or by selection of the heirs of a deceased person. The essential difference between an executor and an administrator is that an executor is appointed or named by the testator in his will to dispose of his estate as directed in the will, while an administrator is appointed by the court having jurisdiction to take charge of the estate of one who dies without a will and to dispose of it according to the inheritance laws of the state. The company takes out the necessary papers, settles the estate by collecting all debts due and paying all claims standing against it, and makes the proper report and accounting to the court. In the same way a trust company may be appointed as guardian of minors or of persons who, because of habitual drunkenness, insanity, or other cause, are not permitted legally to manage their own affairs. In fact the modern trust company, under proper legal authorization, serves in every capacity in which one individual can act for another.

154. Superiority over individual trustee.—As a trustee the trust company has many advantages over the individual. In the first place, it usually has superior responsibility. Though an individual executor or administrator gives bonds for the faithful execution of his trust, yet it has often

[1] Herrick: Trust Companies, p. 34.

happened that individual trustees have used the funds intrusted to their care for their own advantage or have squandered them in speculation, leaving the widow and the orphan destitute. With the trust company the safety of funds is assured. In most states trust companies are required to keep all trust funds entirely separate from their general assets, and in case of failure such funds cannot be levied upon by the creditors of the company. The trust company is usually subject to examination and supervision by state authorities; it protects its customers by an adequate capital and surplus, and in many states it is required to make a deposit with the state officials to guarantee the faithful discharge of its duties as trustee. Its success depends upon its reputation for fair dealing and fidelity to its trusts. It has frequently been said that there never has been a trust fund impaired by the failure of a trust company having control of the fund.[1] Then, too, the trust company has the advantage of perpetuity—it never dies. It has an established office and can always be consulted when needed. The individual trustee may die, or resign, or become incapacitated through ill-health, involving delay, expense and perhaps serious loss in the appointment of another individual trustee.

In the second place, the trust company is usually more efficient than the individual trustee. The latter, even if competent to carry on the work of a trustee, must make it secondary to his own business. The trust company is organized specifically to carry on this work and has the necessary equipment, experience, and facilities for doing it promptly and efficiently. Its wide experience in the trust business and in trust securities is invaluable to the estate. The trust company is constantly in touch with investment conditions, and the extent of its operations enables it to invest the funds of the estate on better terms than the individual trustee.

Finally, the superior facilities of the trust company often enables it to administer trusts more economically

[1] Herrick: Trust Companies, p. 47.

than the individual trustee. The latter must give a bond, the cost of which is charged to the estate, while the trust company's assets and the special deposit with the state protect the trust without extra cost. And, as noted above, the trust company, because of its financial activities and its knowledge of the investment field, is usually in a position to secure a better income for the trust than can the individual. In appointing a trust company as trustee the fees are usually made a part of the contract, so that the expenses may be known in advance. Quite commonly trust companies tender their services in the drawing of wills, keeping them until the death of the testator, and then filing them with the proper court, all without charge in cases where the trust company is appointed executor. In the hands of a personal administrator a trust is often abused, especially in the compensation charged for administering it. The trust company is in the business permanently and it seeks to enhance its reputation and patronage by the efficiency and economy of its services to the public. It is sometimes contended that while the trust company furnishes undoubted security for the funds intrusted to it, and though its position gives it superior opportunities for investment, yet it lacks that personal interest in those for whom it acts which is necessary to obtain the highest return on the funds invested. In answer to this criticism it need only be repeated that the prosperity of the trust company depends upon its reputation for efficient administration and that it will seek to satisfy its clients by securing as large a return upon the funds intrusted to it as is consistent with prudence and safety.

155. Trustee and agent for corporations.—In recent years trust companies, especially in the larger centers, have been prominent as trustees and fiscal agents of large corporations, acting as trustee, registrar, transfer agent or receiver. One of the most common services of this kind is as trustee under a deed or mortgage securing a bond issue. It authenticates the bonds issued under the terms of the deed or mortgage, certifying to the regularity of the issue

and the genuineness of the document. As registrar it certifies that each stock certificate and bond has been properly authorized. Bonds are quite commonly registered as to principal or interest, or both. Somewhat related are the duties of the trust company as transfer agent. Stocks and bonds are constantly changing hands, especially if they are active on the stock exchanges, and it is necessary to have the change in ownership recorded on the books of the corporation so that interest and dividends may go to the proper persons. The rules of the New York Stock Exchange require that a company desiring to have its securities admitted to exchange dealings must have a transfer agency and a registry office in New York, but the same company cannot act in both capacities. This is unwisely permitted in some places. As the function of the registrar is to serve as a check upon any irregularity on the part of the transfer agent, different companies should perform these services. In case of default of the company issuing the bonds, it is the duty of the trust company to foreclose on the property to protect the security holders. Frequently a trust company is appointed as receiver for bankrupt or insolvent concerns.

The trust company acts as fiscal agent for all kinds of corporations, political and industrial. It distributes interest and dividend payments to the holders of stocks and bonds; attends to the publication and mailing of notices; manages sinking funds, and attends to other duties of a similar nature. It acts as agent for the corporation in receiving subscriptions to stocks and bonds and delivering the securities when issued. Trust companies have also been active in the reorganization and financing of corporations of various kinds. Sometimes they even act as promoters of industrial corporations, underwriting their securities and holding them as investments.

156. Insurance department.—Most of the old trust companies which originally carried on a life insurance and annuity business have surrendered that activity to the life insurance companies. So, too, the fidelity insurance busi-

ness is now largely in the hands of bond or surety companies who devote themselves to this business alone, though trust companies sometimes combine this with other trust functions. The fidelity insurance company becomes surety for or guarantees the honesty and fidelity of persons in positions of trust and responsibility. Formerly bonds for this purpose were signed by personal friends, but the practice is growing of having such bonds executed by the fidelity companies. They charge an annual premium for the service and assume the risk as a business proposition on the same general principles as any other form of insurance.

Many trust companies now maintain a title insurance department whose function is to examine and guarantee or insure titles to real estate. In a title insurance policy the company agrees to defend all litigation against the title insured, and if the title should prove faulty to reimburse the insured for the full amount of the loss up to the sum named in the policy. This service requires a highly specialized and elaborate equipment, which the smaller trust companies cannot usually afford.

In most of the larger cities, trust companies conduct a safe deposit department as an adjunct to their business. They construct larger vaults than their own business requires and rent safe deposit boxes to their customers for the safekeeping of securities, private papers, jewelry and other valuables. Usually access to the individual boxes can be had only by the renter or his agent in company with the attendant. The trust company retains one key to each box and the renter has a duplicate. Banks and trust companies find the safe deposit business increasingly profitable, as a larger number of people feel the need of such accommodations and prefer to have them convenient to the place where they do their regular banking.

157. Banking department.—Most trust companies conduct a general banking business, the operation of which has little to distinguish it from that of the commercial bank. Their savings departments, too, are conducted in substan-

tially the same way as the regular stock savings banks. In many of the states the laws define the kinds of banking activities in which trust companies may engage, and they generally require that the banking department and the trust department shall be kept separate. In Massachusetts, where there are no state commercial banks, most of the trust companies transact a strictly banking business, while in Illinois trust companies are forbidden to carry on a banking business. The California bank act of 1909 divides banks into commercial banks, savings banks and trust companies, and provides that any bank may carry on any or all of these three classes of business, but each kind of business must be kept separate and distinct.

Because of the wide scope of their powers trust companies, besides doing a regular banking business, carry on various financial activities, some of which are denied to commercial banks. Thus they loan money on both real estate and personal property, and deal in stocks, bonds, bills of exchange, mortgages and real estate. Not only can they loan upon a wider range of securities, but they are less restricted in other ways. They are usually not limited to any fixed proportion of their capital in making loans to a single borrower, and in some states they are not required to keep a legal cash reserve against deposits. Trust companies pay interest on deposits, thus paying in full for the use of the depositor's money and being free to lend to whoever offers the best security and the highest rate. The commercial bank must take care of its regular customers first and must divide its loanable funds equitably among all requiring discounts; this limits it to short-term paper and comparatively small loans. The trust company can make long-time loans on collateral or real estate and in large amounts. Trust companies, of course, cannot issue circulating notes as do the national banks, and in some states they cannot discount commercial paper. They buy it, however, which practically amounts to the same thing. Generally, trust companies are not admitted directly to the privileges of the clearing house, but in

many cities they clear their local checks through some other bank which is a member of the clearing house association. In many parts of the country, however, there is slight difference between the business done by the commercial bank and that done by the banking department of the trust company. Both operate commercial and savings departments in much the same way and their loans and investments are substantially similar in character.

The operations of trust companies and national banks will be even less sharply distinguished under the Federal reserve system. The Federal Reserve Board has the power to grant by special permit to national banks "the right to act as trustee, executor, administrator, or registrar of stocks and bonds under such rules and regulations as the said Board may prescribe." Trust companies have steadily encroached upon the field of commercial banks; now national banks may compete for trust company business. Trust companies may become members of the Federal reserve system by conforming to the reserve and capital requirements and by submitting to the examination and regulations prescribed by the Federal Reserve Board.

The great variety of financial activities and services in which the trust company may engage owing to the liberality of its charter opens up many sources of profit which are closed to the bank. It has most of the sources of profit available to both the savings bank and the commercial bank, and many others besides. Charges for services vary with the laws of the different states, or, in the absence of specific regulation, with competition between different companies. The fees charged by trust companies acting as executor, administrator, or receiver are subject to the scrutiny of the courts. In former years some trust companies earned enormous profits through underwriting, stock investments and other financial activities. Trust companies have multiplied even more rapidly than banks, partly because they have not been subject to such rigid supervision as have national banks especially, but more largely, perhaps, because of the wide latitude allowed in the conduct of their

business enables them to meet new financial needs as they arise. As Herrick remarks, "The trust company as an institution is still in the formative period," and it is too early to predict the exact form into which it will finally crystallize.

READING REFERENCES

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CHAPTER XX

FOREIGN BANKING SYSTEMS

158. The English system.—The origin and early history of the Bank of England have been sketched in a previous chapter. In 1709 it was granted a quasi-monopoly by a decree of Parliament that no other corporation or partnership of more than six persons should issue demand notes in England. As the issue of notes was regarded as the main business of banking, this provision was understood to prohibit any organization of more than six persons from engaging in banking, and for a number of years the Bank of England had a practical monopoly of the entire field of banking. It received public funds on deposit and acted as fiscal agent of the Government in placing loans and to some extent in collecting the revenues. The charter of the bank was renewed from time to time, usually on condition of new loans to the Government or a reduction of interest on old loans. These loans for war purposes became so large that in 1797 the bank was compelled to suspend specie payments and did not resume until 1821. A parliamentary investigation into the financial situation in 1810 resulted in the famous Bullion Report, the establishment of the gold standard and the present coinage system in 1816, and the gradual restoration of financial order.

In 1826 the monopoly of the bank was relaxed and joint stock companies were allowed to do business, including the issue of notes, beyond a radius of sixty-

five miles from London, and after 1833 they were authorized in London and vicinity, but without the note-issuing privilege. Upon the renewal of the bank's charter in 1833 its notes were made legal tender everywhere in England and Wales, except at the bank itself, so long as redeemable in gold on demand. During this period joint stock banks multiplied rapidly and the amount of note issues was greatly increased. The commercial crises of 1836 and 1839 were attributed to the over-issues of bank paper, and led to a movement for banking reform which culminated in Peel's Act of 1844.

159. Bank Act of 1844.—The Bank Act of 1844 made radical changes in the charter and established the Bank of England on its present basis.[1] It divided the bank into two distinct departments, one to carry on banking operations (discount and deposit) solely; the other to issue notes, but not to transact any banking business. The average amount of the bank's notes outstanding in 1844 was £14,000,000. That sum in securities, including the Government's indebtedness to the bank, was to be transferred to the issue department, which in exchange should transfer £14,000,000 of notes to the banking department. This amount of notes could not be increased except in exchange for an equal sum of gold coin or bullion. Private and joint stock banks having the right to issue notes at that time were allowed to retain their existing circulation, but no additions could be made to it. It was expected that eventually the Bank of England would absorb the entire note-issuing function, so the act provided that whenever any bank should cease to issue notes, the Bank of England, upon authority of the Privy Council, might issue two-thirds of the amount thus lapsed or withdrawn by depositing an equivalent sum in securities with the issue department. Under the operation of this clause, the notes of joint-stock and private banks have declined from over £8,600,000 to

[1] Withers and Palgrave: The English Banking System (Nat. Mon. Comm.), p. 149 *et seq.*

£1,204,490, while those of the Bank of England have risen to about £18,450,000.[1]

The act of 1844 changed completely the character of the bank note. Up to that time it had been a credit instrument based upon the general assets of the bank. The volume of notes expanded and contracted with the demands of business for currency. By the bank act, however, the credit character of the note was entirely destroyed, and it became a mere receipt for gold. Bank notes can be issued only against the deposit of an equivalent amount of gold. The inelasticity of note issues thus established was not felt until the panic of 1847. In that year and again in 1857 the demand on the bank for notes was so urgent that the Government suspended the limitation on the note issues and allowed the bank to issue notes based on its general assets. It will thus be seen that the English note issue system is extremely inelastic, but check or deposit currency has so largely displaced the bank note in commercial payments as to make the latter a factor of inferior importance. Business is transacted largely by check, which, as we have seen, is much more elastic than bank notes. The smallest bank note issued by the Bank of England is £5, but in consequence of the financial disturbances of the European war in 1914, notes were issued by the Government in denominations of ten shillings and one pound in order to conserve the gold supply.

The discussion which led up to the passage of the act of 1844 developed two schools of opinion on the subject of bank currency which have persisted to the present time. One school supported the "currency principle," holding that the amount of note issues should be strictly limited, and assuming that "a certain amount of paper currency will be wanted by the community at all times and that the government may advantageously issue it, either directly or through an agency like the Bank of England." The English system is based on this principle. The other school favored an elastic currency based on the general assets

[1] Withers and Palgrave: The English Banking System, p. 12.

and credit of the bank, and so responsive to the demands of trade. This is known as the "banking principle," and is well exemplified in the French and Canadian banking systems.

160. Bank of England.—The Bank of England located in London with its eleven branches in the principal cities of the country is the center of the banking system of England. It acts as banker to the British Government, being its fiscal agent and the sole depository of government funds. It is the chief factor in controlling the flow of gold and in effecting international exchange. It has a practical monopoly of legal-tender note issues in England, and through its relations with the other banks it is able to provide emergency currency, in the form of deposits, which is remarkably elastic. It is banker to the joint stock and private banks, holding a large proportion of their reserves and rediscounting their paper to some extent. Its position as the government bank gives it great prestige in the eyes of the public which it passes on to the other banks dealing with it.

In the strict sense, however, the Bank of England is not a government bank; it is a private corporation owned and controlled by its stockholders. They elect a board of twenty-four directors, a portion of whom are practically life members, but none of whom, curiously enough, may be bankers. The directors choose from their own members a governor and a deputy governor to serve for two years. The deputy governor regularly succeeds to the office of governor, and the ex-governors constitute a kind of advisory council to the governor, known as the Board of Treasury.

The British law does not require any bank to hold a prescribed percentage of cash reserve. The joint stock and private banks generally carry only enough cash to meet the needs of current business, but keep a regular balance in the Bank of England. This makes of the Bank of England a bankers' bank and the gold reservoir for the whole kingdom. It rarely allows its gold reserve to fall below

33 per cent and generally the proportion is between 40 and 50 per cent. The Bank of England not only carries the responsibility of keeping an adequate supply of cash for home purposes, but it also acts as custodian of the gold store for international banking. London is the financial center of the world and the only center always prepared to honor its drafts in gold to any amount. To protect its gold reserve the bank resorts to the very clumsy and expensive device of raising its discount rate when the reserve is too heavily drawn upon, thus raising the general level of money rates in London and restricting loans. On the other hand, when the reserve rises above the normal level the bank lowers its rate. When the Bank of England raises its discount rate other banks raise theirs, and borrowers are obliged to pay higher rates for money in order that the reserve may be protected. If the raising of the rate does not check the withdrawal of gold or cause it to flow into the bank's vaults, the bank is obliged to go into the open market and borrow funds, thus lessening the supply and forcing up the rate of money. The high interest rates then attract capital, foreign exchange moves in favor of London, and the tide of gold sets in toward the Bank of England, enabling it to replenish its reserve or check the drain upon it.

That the Bank of England is obliged periodically to go through this clumsy process of borrowing money that it does not want to protect its gold reserve arises from the connection or lack of connection between its discount rate, known as the "bank rate," and the market rate. The market rates are established in the open market by the competition of all banks and other investors; they vary with the different classes of bills and fluctuate in accordance with the demand and supply of bills, on the one hand, and of funds on the other. The bank rate is fixed by the central bank and is much more stable. The official bank rate in England is set each Thursday at the weekly meeting of the board of directors. In all countries having a central bank it is common to find the bank rate remaining

unchanged for months at a time. Because of the branch bank system the rate is also uniform throughout the country.

The banking business has passed so largely to the other banks that the official bank rate may differ considerably from the rates quoted by other dealers in credit. Currency in England consists largely of checks drawn against deposits which arise largely from loans and discounts of other banks. There is no legal limit upon the amount of these loans and discounts and competition among the banks frequently leads them to loan at rates which may endanger the public interest by turning the foreign exchanges against London and so causing a demand for gold. It becomes necessary, therefore, for the Bank of England, occupying a commanding position at the head of the system, to intervene and regulate credit operations in the way described.

161. Joint stock banks.—Important as the Bank of England is as the central reserve agency of the English banking system, the fiscal agent of the Government, and the source of note circulation and coin supply, it does a relatively small part of the banking business of the country. The Bank of England does have dealings with individuals and firms, but it is primarily a bankers' bank. The bulk of the mercantile community of England are provided with credit and currency through the joint stock banks, with their numerous branches all over the country as well as in foreign lands, and the private banks. The extent to which these banks have made possible the use of deposit or check currency makes the credit system of England highly elastic. Checks drawn against banking credit are the chief currency, and practially the only limit to the extent of this credit is the prudence of the banks in making advances to customers on the one hand, and on the other the prudence of the Bank of England in extending credit to the other bankers, practically all of whom are its customers.

In addition to providing the bulk of business concerns

with currency and credit, these banks lend largely to the discount houses of London, enabling them to carry on the business of discounting bills of exchange, which is so important a feature of London's financial system.[1] They have also gone into the business of accepting bills of exchange for their customers, and of dealing in foreign exchange, a business formerly left to finance houses.

162. Bank acceptances.—A striking characteristic of the English and other European banking systems is the wide use of bank acceptances. In the United States the usual form of credit is the direct promissory note of the borrower for the term of the loan, but in European countries the bill of exchange is the common instrument of credit. A bill of exchange is an order drawn by the seller of goods, A, upon the buyer, B, asking B to pay at sight or at a given time to C a certain amount of money. B accepts the bill by writing across its face the word "Accepted," with his signature and the date, and so becomes responsible for its payment. This original form of accepted bill of exchange has been extended in recent years until credit can be raised against any form of collateral or security, even the mere personal credit of the parties named on it. Bills accepted by prominent business houses are readily negotiable and are ideal investments for bankers and others who have to keep their assets liquid.

A later development of the bill of exchange, originally drawn against merchandise actually shipped, is the "finance bill" drawn in anticipation of goods to be shipped, or against securities, or the personal credit of the parties to it. Great importance attaches, of course, to the name and standing of the acceptor. Gradually there developed in England a class of bankers, known as merchant bankers or accepting houses, who went into the business of accepting bills, for a commission, for others whose credit was not so well-established, thus making them readily negotiable.

The banks themselves have in recent years gone into the business of accepting bills of exchange, known as "bank-

[1] Withers and Palgrave: The English Banking System, p. 36.

ers' bills," and these form a considerable part of the assets of European banks in their item of loans. A borrower needing a loan for sixty or ninety days may draw a bill upon his bank, which accepts it, thus making it immediately salable because of the bank's credit and standing. The general use of bills of exchange and bank acceptances has created a wide discount market in all the principal centers of Europe. These bank acceptances can be readily rediscounted at any time wherever the accepting bank is known.

163. Discount houses.—The great volume and diversity of bills of exchange coming into the London market constantly has given rise to a special class of dealers in bills, known as discount houses. They act as a kind of intermediary between the drawers of the bills and the bankers, who are the ultimate buyers, holding them as investments until maturity. Some of these firms do a brokerage business only, selling bills on the best terms they can get and charging a commission for the service, but the large houses keep a floating supply of bills for sale to the banks. These discount houses are large borrowers from the banks on call or short notice, and their operations have considerable influence upon the London money market and the movement of gold.

The strong features of the English banking system are: first, the banks of the country have a centralized reserve controlled by one great institution, the Bank of England; second, the banks are almost entirely free from legal restrictions and regulations, and consequently are able under wise management to develop the banking and credit business in accordance with business needs. The system is weak in that it fails to provide adequate publicity. The statements of English banks are very unsatisfactory; they do not distinguish between deposit accounts and current accounts, or between loans on collateral where money goes largely into permanent investments and loans on discounted bills to finance the current needs of trade and industry. It has often been noted, also that the Bank of England, which

is responsible for the protection of the gold reserve of the entire kingdom, carries a reserve (an average of about $150,000,000) entirely too small to insure safety and stability in times of financial stress.

164. The Scottish system.—The Scottish banking system is often referred to as one of the best in the world. Its functions, however, are essentially similar to those of the English system described above. The system consists of a few large banks with numerous branches, so that every little hamlet has the advantage of banking facilities. Interest is quite generally allowed on deposits, which fosters the habit of saving. The Bank of England's monopoly of note issues did not extend to Scotland, so the great joint stock banks developed the use of notes as currency. They are allowed to issue notes as low as £1, while the smallest Bank of England note is £5. The Scotch notes therefore have a wide circulation, but the advantages of check currency have greatly increased its use in recent years. The branch banks pay out only the notes of the parent bank which are redeemable at the head office, thus reducing the amount of gold needed. In common with the English and the Irish banks, the Scotch banks keep reserves in the Bank of England upon which they depend for gold in time of need.

A characteristic feature of Scotch banking, which at one time was fairly general and which still obtains to a considerable extent, is that of personal or cash credits. Under this system a borrower is able to obtain funds from the bank on the joint personal security of himself and one, two, or more friends. This cash credit gives him the right to draw upon the bank within a certain time for any amount up to the stipulated sum, the borrower paying interest only upon the amounts drawn and for the time they are kept. The cash credit has an advantage over the ordinary method of loaning by discount in that it is more economical to the borrower and gives the bank control of all funds not in active business use. The borrower pays into his account the cash which he receives from day to

day, thus reducing his interest charge, and the bank is thus enabled to increase its loans in other directions. This system has enabled farmers and other small borrowers to obtain loans and has fostered the agricultural and commercial prosperity of the country. The indorsers or "cautioners," as they are termed, keep an eye on the borrower for whom they have vouched; they have the right to inspect his accounts, and if they find that his business is not being conducted properly they can withdraw their liability and authorize the bank to call in the loan. In the large industrial centers of Scotland loans are made more largely on collateral pledged as security, yet "the essential difference between Scotch and English banking is still this readiness of the former to take into consideration the personal standing of the applicant rather than the stuff or paper which he brings to it as security for the advance."[1]

Another feature of the Scotch banking system is the rigid adherence among the banks to uniform rates of interest on deposits, on loans, and for other services. The small borrower of limited resources is thus able to get accommodations on the same terms as the largest firm. There is a tendency for large mercantile and manufacturing concerns to seek banking accommodations among the English banks where the opposite extreme of competition obtains and where consequently better rates can often be had.

165. The French system.—As early as 1716 the celebrated John Law created the first French bank of issue. It was a great success until it began to promote Law's speculative schemes in the colonies. When the bubble burst in 1721 it spread financial ruin throughout France, and for fifty years no further attempt was made to establish another national bank. In 1776 Turgot started the Bank of Commercial Discount primarily to help the Government with its loans. It became heavily involved in obligations of the Government during the French Revolution and was closed in 1793.

[1] Withers and Palgrave: The English Banking System, p. 43.

The present Bank of France was founded by Napoleon in 1800 as a bank of issue and of discount with a capital of 30,000,000 francs. At the outset it was a private institution free from government interference and without special privileges. Two other banks had been established in 1796 and 1797. One of these voluntarily consolidated with the Bank of France and the other was driven in, after it had refused to loan money to the Government, by the act of 1803, which gave the Bank of France the exclusive privilege of issuing bank notes in Paris, raised its capital to 41,000,000 francs, and provided that no bank should be established in the departments without authority from the Government. Napoleon determined to make the bank national in its operations, and in 1808 it was given the exclusive right of note issue in every town in which it should establish a branch.

After the fall of Napoleon the influence of the bank waned somewhat and between 1830 and 1840 a large number of independent banks, authorized to issue their own notes, were established in the leading cities. The contest between these department banks and the Bank of France was finally settled in 1848 when the latter was given a monopoly of the issue of notes, and the nine existing department banks were absorbed. This consolidation required an increase in the capital stock of the Bank of France to 91,250,000 francs ($18,000,000). It survived the severe trial of the Franco-German War and the days of the Commune and rendered invaluable service to the Government in floating loans and aiding in the payment of the heavy war indemnity to Germany.

166. Leading features.—Perhaps the most striking feature of the French banking system is the undeveloped condition of deposit currency and the large use of bank notes supplied exclusively by one central institution. These notes serve as the medium of exchange for both small and large business transactions and have proved so stable and satisfactory that there has been little need for deposit currency.

The Government fixes a limit to the maximum issue, but

this amount is increased from time to time as need requires. At present it amounts to 5,800,000,000 francs, or about $1,160,000,000. The circulation of the Bank of France, which generally amounts to several times the deposits, rests entirely upon the credit and assets of the bank. No security is required for the redemption of the notes, and no special reserve is kept for either notes or other liabilities. In practice, however, the bank finds it advisable to keep its specie reserve at 60 to 75 per cent of all liabilities. Thus the currency is perfectly elastic expanding and contracting as the business demand for it changes. This "asset currency" or banking plan of note issue is in striking contrast to the rigid English system based on the currency principle and to our inelastic system of bond-secured circulation.

The Bank of France is required to maintain a branch in every department in France, and it has numerous auxiliary offices throughout the country. One-half of the total capital, which now amounts to 182,500,000 francs, is held by the main bank and the rest is allotted to the branches. The capital stock, which amounts to about $37,000,000, is held by 32,251 shareholders. The stock is issued at 1,000 francs a share and has recently been quoted on the Paris market at about 4,500 francs. It pays dividends of over 20 per cent. Loans are made by the branches at the same rate as at the main office. In recent years the rate has been between $2\frac{1}{2}$ and 4 per cent and has fluctuated less than in any other country. A characteristic of French banking is the making of many small loans ranging down to a few francs. The Bank of France, in common with all the large central banks of Europe, does a large business in rediscounting paper taken by the smaller banks and bearing their indorsement. The bank's business with private persons is limited by the requirement that all paper discounted must have three signatures or two signatures and specified forms of collateral.

France has never formally abandoned the bimetallic standard, but for many years it has practically maintained

the gold standard. The bank holds the bulk of the legal tender silver, except the smaller coins in common use, which amounts to about one-half the gold in its vaults. The silver five-franc pieces are legal tender so the bank is compelled to accept them at par with gold, but it also has the right to pay them out. This gives it a means of checking the withdrawal of gold. When the Bank of England wants to stop the exportation of gold it resorts to the clumsy device of raising the discount rate or the mint price of bullion. The Bank of France offers the customer silver or compels him to pay a premium for the gold, a method equally effective and much less disturbing to business.

Though the Bank of France is a private corporation it acts as the depository of public money and fiscal agent of the Government, and the governor and two deputies are appointed by the President of the Republic. These officials must be stockholders and they hold office practically for life. There is also a general council of fifteen regents and three auditors chosen by the two hundred largest stockholders. The branch managers are appointed by the Government and their subordinates are usually sent from the main bank so that the administration is highly centralized.

While the Bank of France has a monopoly of note issues, there are many small banks throughout the country competing with the branches for commercial business. There are also many powerful banking institutions like the Crédit Lyonnais (capital 250,000,000 francs) with numerous agencies, the Société Générale (capital 400,000,000 francs) and several others, which do a trust company and financial banking business. These banks have numerous branches and supply the French people with banking facilities for both their domestic and their foreign business. The Crédit Foncier is primarily a mortgage bank lending on both agricultural and urban security, but it also discounts commercial paper.

167. The German system.—The Imperial Bank of Germany, or Reichsbank, was organized in 1875 on the foundations of the old Bank of Prussia established one hundred

years earlier. The Bank of Prussia was originally a state institution though there were private stockholders. The establishment of the Imperial Bank was a part of Bismarck's plan to bring order out of the financial confusion that had existed in the German states before the unification of the empire. In 1873 the gold standard was adopted and a new currency system was established with the mark as the unit of value instead of the thaler. The establishment of the bank and other monetary reforms were made possible by the $1,000,000,000 war indemnity which Germany received from France.

In 1875, the German Government purchased the Prussian government's interest in the old Bank of Prussia, raised the capital from 20,000,000 thalers to 120,000,000 marks and sold the entire stock to private interests. It thus became a private institution in ownership, but it was kept under government control and regulation. The present capital of the Reichsbank is 180,000,000 marks ($45,000,000), and it has about 100 branches and over 400 agencies scattered throughout the empire. The governing board, called the Curatorium, consists of the Chancellor of the Empire, who is president, and four directors, one of whom is appointed by the Emperor and the rest by the Federal Council or Bundesrath. The stockholders elect annually a commission of fifteen members, known as the Central Ausschuss, whose main duty is to help the managers of the bank with expert advice. They are authorized to attend all meetings of the directorate and to examine the books of the bank. The active administration of the bank's affairs is largely in the hands of the Directorium, consisting of nine persons appointed by the Emperor for life from a list of candidates recommended by the Bundesrath.

168. The Reichsbank.—The Reichsbank is a private institution but is much more closely under the control of the Government than are the Bank of England and the Bank of France. It acts as the fiscal agent of the Government in receiving and disbursing public money without pay,

and it is authorized to perform like service for the states of the empire. The Government shares in the profits which are distributed as follows: first, a dividend of 3½ per cent (originally 4½ per cent) goes to the stockholders; second, 20 per cent of the remainder is placed to the reserve fund until it is equal to one-fourth of the capital; third, the balance is divided equally between the Government and the stockholders until the latter receives 8 per cent; fourth, of the surplus remaining the shareholders receive one-fourth and the Government three-fourths.

When the Reichsbank was founded in 1875, it was given a monopoly of note issues in the future without direct limitation upon the amount. There were at the time thirty-two other banks and the bank act provided that whenever they surrendered the note issue privilege their circulation might be added to that of the Imperial Bank. Only five of these banks of issue now remain with a total circulation of less than 69,000,000 marks while the note "contingent" (authorized tax-free note issue) of the Reichsbank has gradually been increased to 550,000,000 marks, with an aggregate circulation of 618,000,000 marks.[1] The notes of the bank are not legal tender, but they circulate freely throughout the empire. They must be redeemed in gold on presentation at any of the branches, as well as at the head office in Berlin. The other banks are required to redeem their notes at an agency in Berlin or Frankfort as well as at their own counters. They must accept each other's notes but cannot pay them out except to the bank issuing them or in the city where such bank is located. In this way their circulation is narrowly limited.

The Reichsbank is required to keep a "cash" reserve equal to one-third of its circulation consisting of imperial notes, coin and bullion. Note circulation in excess of the cash reserve must be covered by commercial paper with at least two names and maturing within ninety days. This reserve, however, is not held as a special redemption fund

[1] At certain periods in the year this aggregate circulation is raised to 818,771,000 marks.—The Reichsbank (Nat. Mon. Comm.), p. 39.

for the notes; it protects depositors equally with the note holders. The Reichsbank holds a large part of the reserves of the other banks and so usually keeps in coin and bullion two or three times the proportion to circulation required by law.

Another striking feature of the German system, which gives it much greater elasticity than either the English or our national bank system, is the provision that the banks may in emergencies issue notes in excess of the cash reserve by paying a tax at the rate of 5 per cent a year on such excess. This elastic clause has several times proved advantageous in relieving money stringency.

The Reichsbank is the custodian, as it were, of the gold supply of the country and it employs the same method as the Bank of England to protect and regulate its specie reserve, that is, raising or lowering its discount rate as need arises. It has an advantage over the Bank of England, however, in that the law requires the other banks to conform to its rate when it is 4 per cent or more and not to cut the rate more than one-fourth of 1 per cent when it is less than 4 per cent.

There are many independent banks in Germany some of which, notably the Deutsche Bank, the Disconto-Gesellschaft, and the Dresdner Bank, are very powerful. They play an important part in promoting industrial enterprises both at home and abroad, make advances on real estate mortgages and on corporate securities, and do a trust company business. Agricultural credit is provided by the Raiffeisen and the Landschaften banks of Germany, which make both long and short time loans to farmers and other borrowers.

The use of the check is not as highly developed in Germany as in the United States and England. Bank notes are largely used, and as the 100 mark (nearly $25) note is the lowest denomination gold and silver coins are widely used in smaller payments. A partial substitute for the check is found in the "giro" or transfer system employed by the German banks, notably the Reichsbank and its

branches. Under this system two patrons of the same bank instead of paying cash to each other have a transfer made on the books of the bank, the sum involved being deducted from the account of the payer and added to the account of the payee. The transfer system has been greatly strengthened in recent years by the spread of clearing systems between banks. The bill of exchange also plays an important rôle in the German mechanism of credit. It operates somewhat as follows: A dealer sells goods to a merchant and receives in payment a bill of exchange payable in three or six months. The dealer uses this bill in making payment to the manufacturer to whom he is indebted, and so on until some holder has it discounted or accepted at his bank. Business men are in the habit of taking these bills of exchange as they would cash, so that before they finally reach the bank they usually effect a series of credit transfers.

Most of the other European countries have national or central banking systems whose general features resemble in a broad way those already described. Generally the central bank has a monopoly of note issues, has many branches, and is under the control of the government for which it acts as fiscal agent. The Bank of Russia is owned and controlled directly by the Government, which supplies its entire capital.

169. The Canadian banking system.—The Canadian banking system consists of twenty-three "chartered" banks with some 2,200 branches scattered throughout the Dominion. These banks are privately owned and managed, but they operate under a uniform law and are subject to the general supervision of the Government. The bank act creating the present system was passed in 1870 and every ten years it is revised. No bank can be chartered with less than $500,000 of capital. This large capital requirement discourages the establishment of new banks, and banking facilities are extended by increasing the branches and the capital of the existing institutions. Canadian banks are allowed to establish branches in foreign countries.

Canada's monetary system is substantially the same as ours, though the bank note currency is much more elastic. The gold coins of the United States and the sovereign of England are legal tender. Until 1908 all Canadian coins were minted either in England or in the United States, but in that year a branch of the British mint was established in Ottawa. The paper currency consists of Dominion notes and bank notes. The former are legal tender and may be issued to any amount. The law requires, however, that for $30,000,000 of these notes the finance department shall hold a 25 per cent reserve in gold and government securities, and that all issues above $30,000,000 shall be protected by an equal amount of gold. They are, therefore, gold certificates rather than credit notes. They may be issued in any denomination, but experience shows that they are most needed in large bills for use in bank reserves and in $1 and $2 bills for pocket and till money, the banks not being permitted to issue notes under $5.

170. Elasticity of note issues.—Each chartered bank is allowed to issue notes in amount equal to its capital without deposit of security of any kind. Since 1908 the Canadian banks have had the right to issue during the crop-moving season, October 1 to January 1, an additional emergency circulation equal to 15 per cent of their capital and surplus or "rest" fund. This additional circulation is subject to a tax not exceeding 5 per cent assessed by the Governor in Council. The recent revision of the Canadian Bank Act, which became effective July 1, 1913, provides for a further increase of circulation by depositing gold or Dominion notes, in what is termed the "Central Gold Reserves." These reserves will be under the control of trustees appointed by the Canadian Bankers' Association and the Minister of Finance.

Note holders are protected (1) by a first lien upon the assets of the bank; (2) by the double liability of the stockholders; (3) by a 5 per cent circulation redemption fund. The note holder is further protected by the provision that the notes of failed banks shall draw 5 per cent

interest from the time of default until announcement is made of readiness to redeem them. This holds them at par pending redemption as the yield of 5 per cent makes them a desirable investment for other banks. The redemption fund of 5 per cent of the circulation, which is required of each bank, is in the custody of the Minister of Finance and draws interest at 3 per cent. If the fund becomes impaired the banks may be called upon to restore it, but the rate of contribution is not to exceed 1 per cent a year. Since 1890, however, this fund has never been drawn upon. A few banks have failed, but their notes have been redeemed either out of the assets or by recourse to the double liability of the stockholders.

The law requires each bank to redeem its notes at its head office and in certain commercial centers designated by the treasury board. The redemption cities are the same for all banks and now include Montreal, Halifax, St. John, Charlottetown, Toronto, Winnipeg and Victoria. When the note of a bank is in circulation it is earning money for the bank, so each bank is anxious to keep out as large a volume of its own notes as possible. Hence every bank pays out its own notes through its branches and sends in the notes of other banks for redemption as fast as they are received. They are redeemed in the same way as checks are collected; in cities having clearing houses the notes and checks alike appear in the collections. There is, therefore, a constant process of redemption and issue and the volume of notes rises and falls with the needs of business.

This system of automatic redemption thus provides a safe and elastic currency without the danger of inflation. When a merchant deposits notes, together with his checks, drafts and like items in the local branch bank, this branch sorts out the notes of other banks and sends them to the nearest redemption agency or uses them as an offset in the local clearing house if the issuing banks have branches in that particular town. Thus each bank is constantly sending in for redemption the notes of other banks and at the same time is paying out its own notes to depositors who

want cash. In this way inflation is avoided, and the volume of currency responds automatically to the demands of business.

Though Canada, like the United States, makes use of more currency at the crop-moving season than at other times, it is singularly free from the monetary disturbances and anxiety that we formerly experienced every autumn. The bank note has practically exclusive possession of the currency field in Canada. Though the circulation of all the banks does not ordinarily exceed 50 or 60 per cent of the capital, it may be issued up to the full capital and in emergencies an additional 15 per cent is possible. No security is required against the circulation and no fixed reserve. The Canadian banks meet the need for additional currency by the issue of their own notes, but this leaves their liabilities unchanged, for their deposits decline in proportion as their notes increase. When a depositor draws $1,000 from his bank and receives $1,000 of the bank's own notes, the liability of the bank has simply been changed from a deposit liability to a note liability, and since its reserve of legal tender money remains undisturbed, the transaction does not involve any reduction in its loans.[1]

The Canadian banks are not required to keep a specified cash reserve against notes or other liabilities. The only legal provision is that of whatever reserve a bank may keep, 40 per cent shall be in Dominion notes. Each bank is free to keep whatever reserve it deems adequate, and adequate reserves are always carried. There is a tacit understanding among the banks that in normal times the reserve should equal 15 per cent of the liabilities, and that about 8 per cent should be cash on hand, the rest being in balances due from other banks.[2] The ratio varies with the season and with local conditions, but the whole matter is left to the judgment of the bank managers. The Canadian banks have not suffered from a crisis or panic for over thirty years.

[1] Johnson: Canadian Banking System (Nat. Mon. Comm.), p. 62.
[2] *Ibid.*, p. 71.

171. Branch banking.—The effect of the branch system and the freedom of note issues is to keep interest rates steady and fairly uniform throughout the entire country. Practically all the chartered banks are national institutions having branches everywhere. The small, remote community therefore enjoys the same security and substantially the same banking facilities as the large city. The rate of interest in the small towns of the Northwest is only 1 or 2 per cent higher than in the eastern cities on the same kind of loan, the difference being due to the risk and expense involved in doing business in remote districts. Moreover, under this system branches can be maintained and operated with perfect security in localities where the business would not justify the establishment of a bank with independent capital. The home bank can establish branches in villages of 500 inhabitants or less, giving them all the facilities they need without the investment of additional capital.

Under the Bank Act the Canadian banks have very generous powers, permitting them to "engage in and carry on all such business generally as appertains to the business of banking." Certain provisions of the act relating to loans "make it possible for a Canadian banker to become, as it were, a silent partner in an industry and at the same time to possess a first lien on all its liquid assets . . . If a bank lends money to a wholesaler or to a manufacturer it practically becomes owner of all the goods in his establishment. Yet the borrower is in no wise embarrassed, for he has the same right to buy and sell that he would have if he were under no obligation to the bank. If any time, however, he adopts a policy of which the bank disapproves, or if the course of his business indicates that something is wrong, his bank may take immediate possession of his stock of goods."[1]

The relation between the Canadian bank and its customer is made as intimate and helpful as possible. In practice the business man deals exclusively with one bank, or in the case of the largest concerns with two banks which work in

[1] Johnson: Canadian Banking System, p. 41.

harmony. The bank expects to be kept informed regarding the customer's financial affairs and business operations, and in turn it expects to extend to him all the credit he needs consistent with his business and with general commercial conditions. The customer would not think of attempting to raise funds elsewhere without the consent of his bank. There is very little commercial paper in the Canadian money market and the note broker is almost unknown. Drafts are but little used in domestic business, credit taking the form of book accounts and promissory notes.

The Canadian law makes it possible for the banks to supply adequate funds for the movement of the grain crops with ample security to themselves. When a dealer buys grain he assigns it to his bank; when it is delivered to a railroad the bill of lading becomes the property of the bank; when it is stored in an elevator the bank receives the warehouse receipt; and when shipment is made to the seaboard or to Europe the bank gets possession of the shipper's draft on the consignee, the bill of lading and other documents. Thus, throughout the entire process of marketing the bank practically has title to the agricultural products upon which it has made advances. In the agricultural districts the branch banks supply farmers with working capital for the purchase of implements, seed, stock, etc., on their own personal credit. They do not make a practice of lending on farm mortgages, but lend outright on the farmer's note, strengthened sometimes by a neighbor's indorsement.[1] Some of the larger banks loan considerable sums on call especially in the New York market. They figure these loans as part of their reserve. Financial banking is not very highly developed in Canada as yet, but whatever dealing there is in securities is controlled mainly by the chartered banks. A bank cannot make a loan on the pledge of its own stock or upon real estate. It may acquire title to real estate, but cannot hold it for more than seven years, except that which is needed for the conduct of busi-

[1] Johnson: Canadian Banking System, p. 48.

ness. Loans to directors or officers must be reported each month to the Government. Dividends in excess of 8 per cent must not be paid until the "rest" or surplus equals 30 per cent of the capital.

The trust companies in Canada do a strictly fiduciary business. The chartered banks and their branches all have savings departments and pay 3 per cent on deposits. There is, however, no sharp distinction drawn between demand and savings deposits. In practice both are payable on demand, both go into the general fund of the bank, and savings funds are as likely to be loaned to merchants and manufacturers as are funds which represent demand deposits. While wage-earners and other classes are given every encouragement to open savings accounts, a considerable proportion of the time deposits of the banks are made by business men, who, finding periodically that they have a larger bank balance than they need, arrange for the transfer of the surplus to a savings account or for the payment of interest on it. The government savings institutions pay interest at 3 per cent, but they require several days' notice of withdrawal.

172. Supervision.—A weakness of the Canadian banking system has been the absence of outside inspection of the banks. The Minister of Finance may call for a report of condition of a bank at any time, and the Canadian Bankers' Association, of which all the chartered banks are members, has supervision over the circulation, but there has been no authority to investigate the operations and affairs of the banks. Each chartered bank has an "inspector" who makes periodically a thorough examination of all the branches of that bank, but there has been no outside authority to examine the head office itself. The bankers have contended that they are best qualified to examine themselves, but a feeling has been growing among the public that they should be subject to some kind of supervision. Consequently at the recent revision of the bank act, which went into effect July 1, 1913, provision was made for an annual audit by qualified auditors appointed by the stockholders

from a panel selected by the general managers of the banks and approved by the Minister of Finance. These auditors are given the widest powers of access to the records and securities of the banks, and are required to make an annual report to the stockholders. The Minister of Finance may call upon the auditors or any other auditor whom he may select to make a special report at any time upon the affairs of any bank.

Despite the fact that the Canadian system has twenty-three separate and independent banks, without any central or governmental control or supervision, it possesses a remarkable degree of unity and solidarity. Over one-half of the entire banking business of the country is done by six banks. The Bankers' Association binds the banks together on legislative matters affecting their mutual interests. The managers of the six largest banks, each having several score of branches, are ever watchful to discourage speculative excesses. Through information supplied by the branch managers there is practical unanimity of opinion and policy among bankers as to business conditions and the general outlook. The extent to which the larger banks are interested in the trade and industry of all parts of the Dominion through their branches makes it possible to secure unity and solidarity in a time of common peril. The system though quite unlike any other noted in this chapter is admirably adapted to the needs of the country which it serves.

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CHAPTER XXI

DEFECTS OF NATIONAL BANKING SYSTEM

173. Defects of national banking system.—Reference has been made at various places in the foregoing pages to the defects of our banking system. In this chapter we shall try to summarize these defects and present a brief statement of the problem which the Federal reserve system is expected to solve.

The national banking system established in 1863, remodeled by the enactment of 1864, and patched up from time to time by sixty-odd amendments, remained substantially unchanged in scope and operation through a half century of growth and change in financial and commercial conditions. Designed to meet the fiscal necessities of war times, it proved inadequate to cope with modern commercial needs. It failed to supply commerce and industry with adequate credit facilities in normal times and in times of financial stress it broke down completely spreading disaster and ruin throughout the land. Indeed, prior to the corrective legislation of 1913, our banking system deserved the term, "panic breeder," so often applied to it. The fundamental defects of our banking system may be grouped under three general heads, concerning respectively the reserves, the note circulation, and the general banking organization.

174. Inelasticity of note issues.—One of the principal defects of the banking system was the absolute rigidity of the currency. A national bank could issue notes only by

depositing government bonds with the Treasury. As bonds usually sold considerably above par a bank was disinclined to buy them since it had to pay out more money for the bonds than it was permitted to issue in currency. Instead of rising and falling with the needs of trade and commerce, as deposit currency does, the volume of national bank notes fluctuated with the price of government bonds. The price of these bonds, notably the two per cents which are held almost exclusively by the banks, is determined not by their general investment value, but by the profit possible to banks in using them as security for circulating notes. The people of the United States have become accustomed to bank notes secured by the deposit of government bonds. For fifty years this has furnished an absolutely safe bank note currency, and many people have come to believe that no other kind of bank note would be safe and acceptable. But in the past it has been the policy of the Government to pay off its bonded indebtedness and, doubtless, that policy will be continued. The reduction of the national debt will leave a constantly decreasing volume of bonds as a basis for the note issues of a steadily increasing number of banks. It is inconceivable that the United States would contract new debts or maintain old ones in order to provide a supply of bonds with which to secure bank notes. Even if sufficient amounts of bonds were available in the future, the plan of a circulation secured by bonds stands condemned as inelastic and unresponsive to business needs.

The particular service rendered by bank note currency is substantially the same as that supplied by deposit currency. Both originate from private business operations of discount and deposit. The proportion of notes needed varies with the season, the business habits of the locality, and the rise and fall in the volume of goods exchanged. Though bank notes do far less work than deposit currency, it is essential that they shall be free, as deposit currency is free, to expand and contract with the changing needs of business.

We have about 7,500 national banks issuing notes. In

other countries the note-issuing function has been turned over almost entirely to single central institutions under government supervision. An elastic currency which will automatically expand to meet the normal increase in business and contract when the demands of business lessen, can best be secured by giving to a central reserve association or to a small number of strong banks the power to issue circulating notes based upon sound commercial assets and protected by an adequate gold reserve. To guard against inflation or over-expansion it may be desirable to impose a tax upon notes issued to meet unusual conditions or emergencies as in the German or Canadian systems. Such a tax, however, falls upon the user of the notes imposing upon him an unnecessary burden. It is believed that under the system of regional reserve banks, which provides that no association shall pay out any notes except its own, prompt redemption will be assured and over-expansion prevented.

175. Immobility of reserves.—Probably the most vital defect in our banking system in the past was the inelasticity and immobility of bank reserves. All national banks, and quite generally state banks also, are required to keep a certain reserve of lawful money against deposits. This regulation grew out of our earlier banking experience when numerous small banks, managed in many cases by inexperienced bankers, failed because they did not keep adequate reserves to meet emergencies or unusual demands upon their deposits. It became necessary, therefore, to impose some legal minimum below which a bank's proportion of money on hand to total indebtedness to depositors should not fall. The conservative bank manager, of course, needs no such restrictions; he will always be careful to keep ample reserves. But under our system of independent, free and decentralized banking it has seemed wise to require all banks to keep a minimum reserve. This is peculiar to our system. Foreign banks are not required by law to keep on hand any fixed reserve against deposits. They are left free to keep such reserves as experience shows to be necessary.

These may be large or small depending upon the character of the bank and upon local conditions. The Bank of England being a bank of banks finds it advisable to carry a reserve of 50 per cent or more, while the joint stock banks keep the greater part of their reserve with the Bank of England and hold very small amounts of cash in their own vaults. In most of the European systems banks are required to maintain a cash reserve against notes, but no definite reserve against deposits.

Under our national banking system banks in reserve cities, about fifty in number, were formerly required to maintain a reserve of 25 per cent of their deposit liabilities, and all other banks, known as "country banks" were required to keep a reserve of 15 per cent. In only three cities, New York, Chicago and St. Louis, known as "central reserve" cities, were the banks required to keep their entire legal reserve in their own vaults. The country banks were permitted to deposit three-fifths of their reserve in banks in reserve cities, thus leaving only 6 per cent in their own vaults; and reserve city banks might keep one-half of their legal reserves in banks in any of the central reserve cities. In general, state banks are permitted to redeposit a part of their cash reserves in the large centers in much the same way.

This rigid reserve requirement involved several fundamental defects. It subjected all banks to the necessity of curtailing loans when they approached the legal minimum reserve. The only flexibility, then, was in what is known as the "surplus reserve," that is, the amount of cash resources in excess of the minimum or "legal" reserve. Of course a bank could and sometimes did build up its reserve by selling some of its assets to other banks or by borrowing some of their funds, but when the need was most urgent, when financial stress came upon all banks, this method could not be used for all banks were then struggling to keep all the cash they could get.

The reserve system was weak, also, in that it scattered the cash reserves of the country among 25,000 different

institutions, and provided no central reservoir from which banks could draw cash when it was urgently needed. This system of holding bank reserves has been compared to a system of fire protection in which each of several thousand families in a large city keeps its own cistern of water instead of having the whole city's water supply stored in a common reservoir, connected by conduits with every part of the city, and so instantly available in unlimited quantities for the extinguishment of a blaze at any point.

The weakness of the system of scattered bank reserves was intensified by the provisions allowing the redeposit of reserves. Country banks could keep three-fifths of their legal reserves in the form of credits at reserve city banks, and reserve city banks could keep one-half their reserves in central reserve city banks. Naturally no bank will keep any more idle money in its vaults than is absolutely necessary. The idle money therefore drifted to the central reserve cities, especially to New York, the financial center of the country, where it yielded two or three per cent interest and yet was subject to call at any time. The New York banks had to keep these reserves deposited with them in such fluid form that they could quickly be turned into cash when needed by their country correspondents. In the absence of a rediscount market where prime commercial paper could be readily converted into cash, the New York banks had but one chief source of investment for these bankers' balances—the call loan. These call loans, as explained elsewhere, are made mostly to stock brokers upon the security of stocks and bonds, and usually at lower rates of interest than the prevailing rate for commercial loans. In European countries business men are able usually to borrow at lower rates than speculators. But with us the stock exchange was the only important liquid loan market, and under the old unscientific banking system the banks involuntarily fostered speculation at the expense of business.

This decentralized reserve system, under which each bank held its own cash reserve, but permitted the redepositing of part of it, caused such a concentration of

banking reserves in New York as to produce a dangerous kind of centralized or single-reserve system. Formerly the banks of New York normally carried in their vaults cash reserves of about $500,000,000, which is about one-third of all the money in the banks of the whole country and about one-seventh of the entire fund of money in the United States. This centralization of bank reserves in New York worked fairly well in normal times, but when financial disturbances arose the centralized reserve system suddenly broke up into a many-reserve system. In the absence of any powerful central or regional association, upholding the whole structure of credit and giving confidence and support to all sound banks, the accumulated reserves in New York and other reserve cities were torn down and scattered among thousands of individual banks each scrambling for all the gold it could get. Under every great strain this many-reserve system has completely broken down. In the panics of 1873, 1894 and 1907 which cost the country untold millions of dollars the system of scattered reserves proved powerless to uphold the structure of credit. With no strong central reservoir to draw upon, the thousands of smaller banks, instead of lending freely to meet the urgent need of borrowers, hoarded the little stores of cash they could grab out of the central reserve banks in order to keep up their legal reserves. These reserves intended for an emergency could not be used to meet the emergency when it arose, without violating the law.

In times of extreme financial distress in the past banks have had to resort to temporary coöperative measures to protect their reserves through the local clearing house associations. They arrange to accept in payment of balances between themselves clearing house notes or credits issued by a committee representing the associated institutions. They agree to defer the settlement of their claims against one another until a future date, being protected in the meantime by bank assets in the form of commercial paper or securities turned over to the committee as security. Such expedients cannot of course avert a bank panic; they mere-

ly check its severity and to some degree its spread. These devices are at best temporary and local in their influence, and they are expensive. Clearing house loan certificates issued in times of panic usually bear interest at six per cent or more. Much greater cost is involved in the withdrawal of deposits and in the general weakening of the banks, and still greater loss is suffered by customers of the banks who cannot obtain the necessary accommodations to carry their business commitments. The panic of 1907 was due not so much to the clamor of depositors for their money as to the action of banks in various sections of the country in calling their deposits with agents in the reserve cities. This intensified public distrust and caused a general demand for cash from depositors. After the panic got well under way the banks pooled their resources through the clearing house associations and the panic soon spent itself.

After the panic of 1907, the Aldrich-Vreeland Act was passed permitting national banks to organize national currency associations for the purpose of issuing emergency currency against commercial paper and certain classes of securities other than government bonds. It was intended to provide a legal method of increasing bank currency in times of strain. It was understood to be only a temporary makeshift to remain in force until a scientific banking plan could be worked out. The law was to expire in 1914, but pending the establishment of the new Federal reserve system, it was extended to June 30, 1915, and the tax rate on additional emergency circulation was reduced from a maximum of 10 per cent to 6 per cent. A score or more of these national currency associations were organized, and $500,000,000 of emergency notes were printed and deposited in the sub-treasuries ready for immediate distribution in case of need. No occasion arose for the issue of this emergency currency until the summer of 1914 when large amounts were put out to meet the monetary and exchange disturbances caused by the European war.[1]

[1] See p. 388.

Quite commonly it has been assumed that the issue of notes is the means by which the dangers of a financial panic can be averted. To be sure a system under which the reserve city banks can quickly increase their own notes and meet the demands for currency of country correspondents is helpful, provided these banks want currency for local circulation and not for their own reserves. Additional notes or "emergency" circulation would supply the country banks with a currency that could be paid out if urgently needed and so indirectly protect reserves, and they could be used as reserves by banks other than national banks. But while these emergency issues may afford some relief they do not meet the fundamental difficulties in times of panic. What the merchant needs at such times is a deposit account against which he can draw checks to meet his obligations; what the banker needs is the power to make loans without endangering his reserves. But a bank cannot replenish its reserves by issuing more of its own notes—these are only additional liabilities, not assets. The power to expand their note issues cannot add to the cash reserves of the banks and so enable them to assist needy borrowers and ward off panics. The power to expend their loans is the essential consideration. After the loan is made, checks provide the means of payment in the great majority of cases.

176. Absence of a discount market.—The weakness of the system of diffused cash reserves was accentuated by the absence of a general and active market for commercial paper. Under the former system banks buying good short-time commercial paper issued for agricultural, industrial and commercial purposes were practically compelled to hold it until maturity. They had no assurance of being able to rediscount or market the paper they held at favorable rates when they needed more funds. They were therefore compelled to keep on hand considerable quantities of reserve money which either lay idle or was invested in call loans on stock exchange collateral—the only liquid asset available. During the panic of 1907 the banks of the

country had an abundance of good assets but there was no way to convert them into cash. It is believed that this defect will be corrected by the regional reserve system which provides for the centralization of bank reserves and also provides a means by which member banks may secure funds as long as they can present live commercial paper growing out of legitimate commercial transactions. Assured of a source where sound commercial assets can be converted into cash when needed, banks will be freed from the fear of exhausting their reserves and will not engage in the mad scramble for gold which under former conditions quickly converted a crisis into a wild panic.

The creation of a central institution for the holding of the banks' reserves and the establishment of a broad discount market should tend to reduce and render much more stable the rate of discount which varies so widely throughout the country. Formerly the borrower in the South and West generally had to pay a higher rate than the borrower in the East. This was due in part to the absence of suitable machinery for the distribution of the loanable funds of the country. In recent years the note broker has entered the financial field as an intermediary between the banker with surplus funds and the borrower who cannot get all the accommodation needed at his local bank. This has helped to some extent in broadening the loan market and in equalizing rates, but it has failed to provide general relief. The organization of regional reserve banks under central control will probably tend to standardize commercial paper and create a broad market for it. Then all banks may enter this market when they have surplus funds to invest, and prime commercial paper originating in sections where rates have been very high will find a market on terms more nearly equal to those for similar paper originating in other sections.

177. No system of bank acceptances.—The establishment of a broad market for commercial paper would be greatly facilitated by legalizing the bank acceptance. By the decision of the courts national banks have not been permitted

to accept time bills of exchange. The bank acceptance as a device for the extension of credit is very widely and successfully used in foreign countries. A borrower desiring a sixty or ninety day loan draws a bill on a bank which accepts it under some mutually satisfactory arrangement. Such a bill is at once salable wherever the accepting bank is known, and the drawer is able to obtain funds without delay. The legalization of acceptances would not only provide a broad market for commercial paper, but would also enable business concerns to borrow at lower rates. In Europe bankers' bills command the lowest rate of any form of bank paper. If banks were permitted to accept time bills country banks, instead of buying commercial paper through note brokers, which is attended with some risk and which ties up their funds for a considerable time, could invest in paper backed by the credit of some powerful bank of whose standing there is no question. More important, however, is the fact that with a national discount market these bank-accepted bills could always be promptly converted into cash when the banks holding them needed money to meet an emergency.

The prohibition of bank acceptances has not only been a hardship to the banks, but it has also handicapped our merchants engaged in domestic and foreign commerce. Without a national discount market most of our merchants and manufacturers have been excluded from the benefits of foreign competition for their paper and are confined in their borrowings to American capital. However low discount rates may be in Europe, they pay the current local rates for money. Without the facility of bank acceptances we have been at a distinct disadvantage in our foreign trade. An English importer arranges with his bank for the acceptance of sixty or ninety days' sight bills drawn upon it by an American shipper. The latter sells the bills to a New York bank and receives immediate payment. The New York bank forwards the bills, with the shipping documents attached, to its London correspondent which presents them for acceptance to the bank on which they are drawn. The

bill of lading is then turned over to the importer according to whatever arrangement has been made between him and his bank. The accepted bills are discounted in London by the New York bank, and against the credit thus established it can immediately sell sterling exchange. The New York bank can afford to pay a high rate for such bills as they are drawn on responsible bankers thus assuring payment at maturity. In the past the American importer, unable to make this kind of arrangement with his bank, has been compelled to finance his foreign purchases either by negotiating a loan and remitting the funds direct to the shippers, or by having the shippers draw on him, turning the draft over to their banker to be sent to a New York bank for collection. This shifts the burden of providing funds to finance the transaction upon the foreign shipper who consequently can exact terms favorable to himself through price adjustments. Either method open to the American importer is expensive as compared with the use of bank acceptances common in other countries.

Our system of decentralized and independent banking has failed to meet the needs of international operations. It has lacked the unity of policy necessary to finance the export of merchandise, to deal on equal terms with foreign banks in international exchange, or to control international gold movements. In the financing of foreign trade our exporters have had to rely largely upon accommodations at foreign banks or at private banking houses which of necessity work upon a limited scale and without reference to the broader needs of general trade. In the past our national banks have not been permitted to establish branches in foreign countries to supply the American exporter with the kind and the amount of credit needed to meet foreign conditions. Because they could not be sure of rediscount accommodations they have hesitated to tie up any considerable part of their funds in the long-term operations needed in international trade.

178. No regulation of international flow of gold.—Our banking system has lacked the power to exercise effective co-

operative control over the international flow of gold. One of the important functions of the great central banks of Europe is to regulate the rate of discount in such a way as to prevent the gold reserve from being unduly depleted, and to build it up when necessary. But in this country there has been no properly organized agency to check the outflow of gold or to restore the depleted supply when gold reserves fall below normal necessities. During the panic of 1907 and at other times of urgent need a few banking houses have imported large quantities of gold but there has been no concerted effort to attract gold by raising rates of discount or by offering foreign countries the proper inducements to part with their specie. "No such policy is possible in a country where there is no coöperative agency to regulate the rate of discount. It is impossible to expect banks, acting on their own initiative, in competition with others, and controlled primarily by a desire for profit, to pursue a policy which would merely reduce their own earnings and would not result in conserving the gold supply of the country. If they could act as a unit there would be many cases in which they would agree to raise the rate of discount to customers in order to check borrowing, reduce exportation of gold, and put a brake upon lines of business which were going too far for the good of the country.

179. Clumsy and wasteful Treasury system.—It has generally been recognized that no reform of our banking and currency system can be adequate which does not take the United States Treasury out of the banking business. The independent treasury system was established in 1846 after the experiences of the panic of 1837 had demonstrated the unwisdom and insecurity of keeping public funds in the state banks. The Government then resolved to keep its funds in its own vaults, and sub-treasuries were established at convenient points in which government receipts should be deposited and from which disbursements should be made—in short to be its own banker. Since the adoption of the national banking system various modifications

have been made in this original plan, but until recently the essential features remained.

Perhaps the most fundamental defect of the independent treasury system in its relation to the business of the country in the past was due to the fact that payments to the United States Government had to be made for the most part in actual money which was not disbursed again promptly, but was stored in the Treasury or the subtreasuries to lie idle for weeks or months, after which it might be paid out rapidly and in only a few centers. Private individuals, corporations, municipalities, state governments and the governments of all other countries deposit their funds in the banks from day to day. No great government but ours has held to the mediæval custom of keeping its funds stored away in vaults. This system of hoarding by the Treasury is particularly wasteful because under our present method of taxation, payments to the Government are likely to be heaviest at those seasons when banks need additional reserve money in order to extend loan accommodations to business concerns. Importation of foreign goods is usually heaviest in the late summer and early fall. To pay the customs duties importers must withdraw funds from the banks and pay them into the Treasury. Just at this time banks in these customs ports are being called upon to meet the interior demand for funds with which to move the crops. The result is a curtailing of the power of the banks to grant the credit needed for legitimate enterprise. Generally large disbursements from the Treasury are not contemporaneous with these large receipts. The heaviest treasury disbursements occur on the first of January and of July, when bond interest is paid, and in early summer when new appropriations go into effect.

Not only are the receipts and disbursements of the Treasury irregular in time, but under our unscientific budget system, which fails to secure an approximate balancing of revenue and expenditure, the balance sheet of the Government shows a heavy deficit one year and a large surplus the next. These wide variations in the annual bal-

ance seriously disturb the money market and the business of the country and "force the Secretary of the Treasury to enter actively into the money market as a paternal overseer of the machinery of credit." In the face of this situation with government revenues and expenditures "teetering" up and down with alternate surpluses and deficits the Secretaries of the Treasury in recent years have adopted, among other expedients, the practice of depositing a considerable proportion of the general funds with selected national banks on condition that they turn over to the Government approved bonds to an amount equal to the money thus deposited. In December, 1907, following the panic, the special deposits of public funds in the banks reached a total of $265,000,000; three years later they were reduced to $4,000,000. In the fiscal year, 1908-1909, the Treasury withdrew $100,000,000 from the banks. This practice is objectionable not only on the ground that it involves injustice and inequality in the treatment of different banks, but it gives to the Secretary of the Treasury the dangerous power of influencing the money market by depositing or withdrawing public funds. This power of regulating the discount rate is the proper function of the banks and not of a government bureau which because of its lack of contact with the daily currents of business is entirely unqualified to regulate a matter so closely interwoven with the needs of credit and business. The Treasury should be absolutely divorced from the money market and the banking business.

From the foregoing analysis of the chief defects of our banking and currency system, it is apparent that adequate banking reform must include a plan to mobilize bank reserves; to establish a broad discount market for commercial paper; to establish an elastic currency; to abolish the clumsy sub-treasury system and to release the Government's surplus hoardings for commercial use; to provide facilities for financing foreign trade and an agency for regulating the international flow of gold; and to establish among our 25,000 banking institutions a coöperative system

which while preserving to them independence and open competition in all local affairs will give unity and solidarity in matters affecting the banking and credit operations of the country as a whole. To what extent these reforms have been provided for in the Federal Reserve Act will be considered in the next chapter.

180. Plan of National Monetary Commission.—The panic of 1907 brought sharply to the attention of the whole country the inherent weaknesses of our banking and credit system and stirred Congress to action. In 1908 the Aldrich-Vreeland law was enacted as a temporary measure permitting national banks to organize themselves into National Currency Associations for the purpose of issuing additional circulation upon certain classes of securities other than government bonds. This act also created the National Monetary Commission, composed of members of the Senate and of the House of Representatives, to make a thorough investigation into the banking and currency systems of the leading commercial countries and to bring in a report. The commission spent four years in investigating banking and credit systems and methods at home and abroad, seeking the counsel of economists, bankers and business men, and published its findings in nearly fifty volumes, which constitute the most complete library on the subject ever issued. In January, 1912, the commission finally reported to Congress and brought in a bill embodying what came to be known as the "Aldrich plan," after Senator Aldrich, chairman of the commission. The bill was referred to a committee in the House of Representatives, but it was never reported out of committee. This plan, amended in some respects and put forward as the National Reserve Association plan, received the indorsement of the American Bankers' Association, numerous chambers of commerce and other business organizations, economists and publicists.

The plan proposed by the Monetary Commission provided for the establishment of local associations of banks and the grouping of these into regional associations, and the grouping of these in turn into a national reserve asso-

ciation with a head office at Washington. Under certain conditions all banks in the country were to be eligible for membership in this central institution. Its functions were to be essentially the same as those performed by the great central banks of Europe, namely, the holding and administration of the bank reserves of the country, the issue of an elastic currency based upon commercial assets, the rediscount of commercial paper for banking institutions, and the serving as depositary and disbursing agent for the Government. The commission believed that it had worked out a system of control which would prevent the domination of the association by any group of interests, political or financial. Though the plan submitted by the commission was intended to be non-partisan, the report being unanimous and signed by Republican and Democratic members alike, it failed to get strong public support partly because of its apparent resemblance to a central bank and of popular suspicion of its reputed author, Senator Aldrich, but chiefly because the public was not thoroughly aroused to the need for banking reform and informed as to what the proposed plan essayed to accomplish.

The appearance of the Monetary Commission's report stimulated widespread interest and discussion of banking reform. In June, 1911, the National Citizens' League was organized in Chicago by a group of business men under the auspices of the Association of Commerce to disseminate information as to the essentials of banking reform and to give organized expression to the demand for it. It sent speakers into all parts of the United States and formed branch organizations in every state. As part of its educational campaign it distributed over a million pieces of literature.

In the presidential campaign of 1912 two of the political parties in their national platforms condemned the plan proposed by the National Monetary Commission, and the successful Democratic party specifically opposed any plan involving a central bank. Many of the best features of that plan, however, were incorporated in the banking bill,

known as the Federal Reserve Act introduced in the House of Representatives, June 26, and finally enacted into law, December 23, 1913.[1]

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White: Money and Banking, Bk. III, Ch. XVII, XVIII.

[1] For a sketch of the legislative history of this Act, see H. P. Willis: "The Federal Reserve Act," *American Economic Review*, March, 1914, pp. 3-17.

CHAPTER XXII

THE FEDERAL RESERVE SYSTEM

181. Federal reserve banks.—In previous chapters reference has been made at different places to the terms and operations of various features of the Federal reserve system. We shall now try to summarize the new law as a phole, point out its most important features, and indicate the most important changes thus introduced into our currency and banking system.

The Federal Reserve Act provides for the division of the United States into from eight to twelve districts by the Organization Committee, composed of the Secretary of the Treasury, the Secretary of Agriculture and the Comptroller of the Currency, each district to have one Federal reserve bank to be located by the said committee. Each reserve bank is to have a capital of not less than $4,000,000. Every national bank must, and state banks and trust companies may, subscribe to the capital of the Federal reserve bank in their district to an amount equal to 6 per cent of their own capital and surplus, payable one-sixth at the call of the organization committee or the Federal Reserve Board, one-sixth within three months, and one-sixth within six months, the balance being subject to call. National banks failing to accept the terms of the Act within sixty days after notice lose the right to act as reserve agents and any bank which fails to become a member bank or to comply with the provisions of the Act within one year forfeits its charter. If the stock subscriptions of banks in

any district be insufficient to provide the minimum capital required, stock may be offered to the public, no single private subscription to exceed $25,000, and should the total subscriptions of banks and public be insufficient the balance needed is to be allotted to the United States, to be paid for out of treasury funds. The capital stock of each Federal reserve bank may be increased as member banks increase their capital or as additional banks become members, and may be decreased as member banks reduce their capital or surplus or cease to be members. The Act provides for the conversion of state banks into national banks if the state law permits such conversion. Membership is not confined to national banks, but any bank incorporated by special law of any state or organized under the general laws of any state or of the United States may become a member of a Federal reserve bank by meeting substantially the same requirements as apply to national banks. Every such state bank before being admitted is required to conform to the law "imposed on the national banks respecting the limitation of liability which may be incurred by any person, firm or corporation to such banks, the prohibition against making purchases of or loans on stock of such banks, and the withdrawal or impairment of capital, or the payment of unearned dividends, and to such rules and regulations as the Federal Reserve Board may, in pursuance thereof, prescribe." It must also have a paid-up unimpaired capital sufficient to entitle it to become a national bank in the place where it is located; it must comply with the reserve and capital requirements, and submit to the examination and regulations prescribed by the Federal Reserve Board; and it must make reports of condition and of dividend payments to the Comptroller of the Currency.

182. Management.—Each Federal reserve bank is to be conducted under the supervision and control of a board of nine directors holding office for three years and divided into three classes, designated as classes A, B, and C. The three members of Class C are to be appointed by the Federal Reserve Board, and must have been for at least two

years residents of the district in which the Federal reserve bank is located. None of them shall be an officer, director, employee, or stockholder of any bank. One member of this class, who must be "a person of tested banking experience," is to be named as chairman of the board of directors of his district reserve bank, and will be known as "Federal reserve agent." He will maintain a local office of the Federal Reserve Board and act as its official representative in the district. Another member of Class C shall also be an experienced banker and shall act as deputy chairman and deputy Federal reserve agent.

Directors of Class A and Class B are chosen by member banks. Directors of Class A are to represent the member banks and presumably will be officers or directors of these banks. Directors of Class B must at the time of election "be actively engaged in their district in commerce, agriculture, or some other industrial pursuit." They may not be officers, directors, or employees of any bank, though they may be stockholders. No Senator or Representative in Congress may be an officer or director of a Federal reserve bank or a member of the Federal Reserve Board. It appears, then, that "Class A consists of representatives of the banks or those who are intrusted with the funds of the business public for investment; Class B consists of representatives of the public who are furnishing the funds; and Class C consists of the representatives of the Government, which undertakes to supervise the proper and conservative investment of such funds."[1]

The plan of electing the six directors of Classes A and B is as follows: In each district the chairman of the board of directors of the Federal reserve bank, or, pending his appointment, the organization committee, shall classify all the member banks of the district into three groups, each group containing as nearly as possible one-third of the total number and consisting of banks of similar capitalization.

[1] Address of Mr. Milton C. Elliott, Secretary of the Organization Committee, at the convention of member banks of the Fifth Regional District, held at Richmond, May 18, 1914.

Then the board of directors of each member bank chooses a district reserve elector and certifies his name to the Federal reserve agent of the district. The agent makes lists of the electors thus chosen by all the banks in the three groups of the district and sends a list to each elector in each group. Each member bank may nominate a candidate for director of Class A and another for Class B, and a list of these nominees is furnished by the reserve agent to each elector. On a ballot form furnished by the agent each elector certifies his first, second and third choice for three directors of Class A and three of Class B. A candidate having a majority of the total votes cast in the column of first choice is declared elected. If no candidate have a majority, votes cast for second choice candidates are added to those of the first choice, and if no candidate then have a majority the votes for third choice are to be added.

At the first meeting of the board of directors of each Federal reserve bank the directors of each of the three classes shall designate one member of each class whose term shall expire in one year, one in two years, and one in three years from the first of January nearest to the date of such meeting. Thereafter all directors are chosen for three years. Vacancies that may occur are to be filled in the same way as in the original selections and such appointees are to hold office for the unexpired term of their predecessors. Directors of Federal reserve banks may receive compensation for their services, subject to the approval of the Federal Reserve Board, and in addition a reasonable allowance for all necessary expenses in attending board meetings, such compensation and allowance to be paid by the respective reserve banks. An exception to this rule is the Federal reserve agent, whose compensation is determined by the Federal Reserve Board but paid by the reserve bank.

Each Federal reserve bank is directed to establish branch banks within its district, and may do so in the district of any other reserve bank that may have suspended. These branches are to be operated by a board of seven directors

under rules and regulations approved by the Reserve Board. Branch directors shall possess the same qualifications as directors of the Federal reserve banks. Four are to be chosen by the reserve bank and three by the Reserve Board, and one of them is to be designated as manager by the reserve bank. All hold office during the pleasure of the parent bank and the Reserve Board.

183. Federal Reserve Board.—The act creates a Federal Reserve Board of seven members with sweeping powers of supervision and control over the new system. The Reserve Board is composed of two members ex-officio, the Secretary of the Treasury and the Comptroller of the Currency, and five other members appointed by the President of the United States by and with the advice and consent of the Senate. The law provides that in selecting the five appointive members, not more than one of whom shall be selected from any one reserve district, "the President shall have due regard to a fair representation of the different commercial, industrial and geographical divisions of the country." The five appointive members hold office for ten years, unless sooner removed for cause by the President, but the first appointees serve for two, four, six, eight and ten years respectively. They are to devote their entire time to the duties of their office, and receive an annual salary of $12,000 and traveling expenses. The Comptroller of the Currency receives $7,000 for his services as a member of the Board in addition to the $5,000 salary paid him as Comptroller. Two of the appointive members must be experienced in banking or finance. One of these is to be designated as governor and one as vice-governor of the Reserve Board, the governor being the active executive officer. The Secretary of the Treasury is ex-officio chairman of the Board. The Act specifically provides that whenever any power vested by it in the Reserve Board or the Federal reserve agent appears to conflict with the powers of the Secretary of the Treasury, such powers shall be exercised subject to the supervision and control of the Secretary. The members of the Board, the Secretary of

the Treasury, the Assistant Secretaries of the Treasury, and the Comptroller of the Currency are declared ineligible to hold any office, position or employment in any member bank during the time they are in office and for two years thereafter. The Board is empowered to levy semi-annually upon the Federal reserve banks an assessment sufficient to pay its expenses and the salaries of its members and employees.

As previously noted, the Federal Reserve Board has very broad and sweeping powers. Twelve of these powers are specifically enumerated in Section 2 of the Act, and others, either specifically stated or implied, are found throughout the Act. The Board is given general supervision over all Federal reserve banks. It appoints three of the nine directors of each Federal reserve bank, and may suspend any of its officers or directors. It may create new Federal reserve districts and rearrange old ones; require Federal reserve banks to write off doubtful or worthless assets; and suspend or liquidate any Federal reserve bank for violating any of the provisions of the Act. It may examine the accounts and affairs of both the reserve banks and member banks, require such statements and reports as may be necessary, and publish a weekly statement showing the condition of each Federal reserve bank and a consolidated statement for all Federal reserve banks. The Reserve Board has general supervision over rediscounting, determining the class of commercial paper eligible for rediscount and having the right to review the rates charged by each Federal reserve bank. It may permit or require reserve banks to rediscount the discounted paper held by other reserve banks, and may suspend the reserve requirements of both reserve banks and member banks. It may supervise and regulate through the office of the Comptroller the issue and retirement of Federal reserve notes. The Board supervises the open market operations of the reserve banks, granting or withholding consent to their establishing foreign branches and agencies, and making regulations for the conduct of the same. It may require any or all of the

reserve banks to act as a clearing house within their own district, and may fix the rates which they may charge for this service.

The Reserve Board also has a large measure of control over the individual member banks. It may define the character of the paper eligible for rediscount at their reserve banks, and fix the charges they may collect on items cleared through the reserve banks. It may permit member banks having a capital and surplus of at least $1,000,000 to establish foreign branches, and to allow member banks to exercise certain trust company functions if not in contravention of state law. The Board may also change the number of reserve and central reserve cities or reclassify them.

This summary of the powers of the Federal Reserve Board, though incomplete, will serve to show the wide extent of their authority under the Act. It is obvious that a board clothed with such powers can exercise an enormous influence either for good or ill upon the new system. Success or failure, especially in the early years of its operation, will depend largely upon their ability, wisdom and tact.

184. The Federal Advisory Council.—To advise and consult with the Federal Reserve Board and to keep it in touch with business and banking conditions and needs throughout the country, the Act creates a Federal Advisory Council, composed of one representative of each reserve bank selected annually by its board of directors. This Council is to meet at Washington at least four times a year, and oftener if called by the Reserve Board. It may hold additional meetings either in Washington or elsewhere, and may select its own officers and adopt its own methods of procedure. The Council has power by itself or through its officers to do three specific things: "(1) to confer directly with the Federal Reserve Board on general business conditions; (2) to make oral or written representations concerning matters within the jurisdiction of said board; (3) to call for information and to make recommendations in regard to discount rates, rediscount business, note issues, reserve conditions in the various districts, the purchase

and sale of gold or securities by reserve banks, open market operations by said banks, and the general affairs of the reserve banking system."

The advantages of this regional bank plan of organization and control as contrasted with a central bank are stated by Professor Sprague thus: "Banks managed by local people are much less likely to give rise to sectional antagonism than branches of a single institution; rates of discount can be more readily adjusted to differences in the demand and supply of capital in the various parts of the country; above all, the plan of regional banks permits a nice adjustment between banking and government influence in the management. Government supervision of a central bank and whatever control may be deemed advisable cannot be made effective without at the same time placing the details of operation in the hands of government officials. Under the plan for regional banks, purely banking matters, such as the making of loans, are made the concern of boards of directors, a majority of the members of which is chosen by bankers; while government supervision and a certain measure of control is vested in a board, the Federal Reserve Board, entirely appointed by the President of the United States. This form of organization is flexible enough to permit at any time in the future the extension either of government or of banking influence in the management."[1]

185. Functions and powers of Federal reserve banks.—The chief functions of the Federal reserve banks are suggested in the preamble to the Act, namely, "to furnish an elastic currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the United States, and for other purposes." These banks, of which twelve, the maximum number permitted by the Act, have been established, are essentially bankers' banks, dealing only with member banks and the Government, and not with the general public, except for certain

[1] "The Federal Reserve Act of 1913," *Yale Review*, April, 1914, p. 439.

open market operations to be discussed later. Their main activities will be rediscounting, issuing notes, and investing surplus funds in ways permitted by the Act. By discounting commercial paper and issuing notes these banks will furnish an elastic currency, and by holding a part of the reserves of member banks they will make it possible for any solvent member bank to obtain cash to meet an emergency.

The funds of the Federal reserve banks will come from three sources: subscriptions of member banks, government deposits, and deposits of member banks. It is estimated that if only the national banks enter the system the paid-in capital of the Federal reserve banks will aggregate about $53,000,000, and that when the system is in full operation the required deposits of reserves by member banks will increase their contribution, on the basis of present-day conditions, to about $365,000,000. It is probable that member banks will find it necessary to keep with the Federal reserve banks deposits in excess of the required reserves because of the various clearing arrangements to be undertaken by the latter. If member banks decide to carry their optional reserves on deposit with the reserve banks, the latter may hold deposits of member banks aggregating $605,000,000 and possibly as high as $750,000,000. At the option of the Secretary of the Treasury, government funds may be kept with the Federal reserve banks, with national bank depositories, or in the Treasury. If, as is probable, the bulk of the free funds of the Government is deposited with the Federal reserve banks, their resources will be increased by some $150,000,000 to $200,000,000. It is possible, therefore, that the aggregate resources of the reserve banks may range somewhere between $418,000,000 and $1,000,000,000.[1]

The source and character of deposits that may be accepted by Federal reserve banks are stated in Section 13 of the Act, as follows: "Any Federal reserve bank may

[1] Thomas Conway, Jr.: "The Financial Policy of the Federal Reserve Banks," *Journal of Political Economy*, April, 1914, pp. 320-321.

receive from any of its member banks, and from the United States, deposits of current funds in lawful money, national bank notes, Federal reserve notes, or checks and drafts upon solvent member banks, payable upon presentation; or solely for exchange purposes, may receive from other Federal reserve banks deposits of current funds in lawful money, national bank notes, or checks and drafts upon solvent member or other Federal reserve banks, payable upon presentation."

The earnings of each Federal reserve bank, after all necessary expenses have been met, are to be distributed as follows: (1) the stockholders are to receive an annual 6 per cent cumulative dividend; (2) the balance is to be paid to the United States as a franchise tax, except that one-half of it is to be paid into a surplus fund until it amounts to 40 per cent of the paid-in capital stock of the reserve bank. The net earnings thus derived by the Government are to be used, in the discretion of the Secretary of the Treasury, either to supplement the gold reserve held against outstanding United States notes, or to reduce the bonded indebtedness of the United States under regulations to be prescribed by the Secretary. Should a Federal reserve bank be dissolved or go into liquidation, any surplus remaining after the payment of all debts becomes the property of the United States.

186. Rediscounting.—The chief business of the Federal reserve banks, presumably, will be the rediscounting of commercial paper for member banks. As we have seen, one of the most serious defects of our banking system has been the absence of any strong centralized agency to which the banks of the country could turn in time of need to convert some of their assets into money. The new law aims to correct this defect by creating a number of these agencies, at convenient centers in the country, with power and ample resources to rediscount for member banks the commercial paper which constitutes a considerable portion of their investments. The provision in the Act regarding the character of paper eligible for rediscount reads as follows:

"Upon the indorsement of any of its member banks, with a waiver of demand, notice, and protest by such bank, any Federal reserve bank may discount notes, drafts, and bills of exchange arising out of actual commercial transactions; that is, notes, drafts and bills of exchange issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been used, or are to be used, for such purposes, the Federal Reserve Board to have the right to determine or define the character of the paper thus eligible for discount, within the meaning of this Act. Nothing in this Act contained shall be construed to prohibit such notes, drafts, and bills of exchange, secured by staple agricultural products, or other goods, wares, or merchandise from being eligible for such discount; but such definition shall not include notes, drafts, or bills covering merely investments or issued or drawn for the purpose of carrying or trading in stocks, bonds, or other investment securities, except bonds and notes of the Government of the United States. Notes, drafts, and bills admitted to discount under the terms of this paragraph must have a maturity at the time of discount of not more than ninety days: *Provided,* That notes, drafts, and bills drawn or issued for agricultural purposes or based on live stock and having a maturity not exceeding six months may be discounted in an amount to be limited to a percentage of the capital of the Federal reserve bank, to be ascertained and fixed by the Federal Reserve Board."

The Act does not define commercial paper except in general terms, but it specifically excludes investment paper. One of the first and most important duties of the Reserve Board will be to determine the character of the commercial paper which reserve banks may rediscount for member banks. Reference has been made in an earlier chapter to the change in business practice by which two-name commercial paper has largely been displaced by single-name paper, which in many cases cannot be regarded as strictly commercial. Single-name paper has become so nearly universal in certain lines of business, and has become so thor-

oughly ingrained in our commercial practice, that it seems impracticable to return to the old methods to any considerable extent. There does not seem to be any good reason for excluding high-grade one-name notes from the privilege of rediscount if the discounting bank produces evidence that the loan is to be used for strictly mercantile purposes as contemplated by the Act. "Yet," says one writer, "there will certainly arise a tendency to devise forms of paper which, while consistent with the existence of trade discounts, will disclose more distinctly than the present promissory note the purpose of the borrower to use the loan for mercantile, and no other, purpose."[1]

Though some experienced bankers hold that rediscounting will be resorted to only in times of stringency when it is necessary for a bank to strengthen its reserves, the practice will nevertheless be freed from the suspicion which in the past has attended it in this country. "The rigidity of credit banking in the past, the destructive snatching for reserves, are displaced by a system which allows good commercial paper, under certain limitations, to be converted into lawful reserves. . . . Therefore, in a time of panic—if any such arrives—there will be no reason for a run on cash reserves, or if there is a semblance of it, there will be a quick and ready way by which the reserves can be replenished."[2]

187. Open market operations.—Anticipating that rediscounting for member banks may not keep all the funds of the Federal reserve banks actively employed, provision is made for them to engage in certain open market operations. These operations will also make it possible for the reserve banks to exercise a general control over money market conditions, and to some extent over the flow of gold. There are three kinds of open market operations in which the reserve banks are permitted to engage, viz.: (1) dealings in government securities and in obligations of the

[1] J. Laurence Laughlin: "The Banking and Currency Act of 1913," *Journal of Political Economy,* May, 1914, p. 426.

[2] *Ibid.,* p. 424.

states and municipalities, maturing within six months; (2) dealings in foreign exchange; (3) dealings in domestic bills or exchange. In periods of inactive demand for rediscounts reserve banks will doubtless invest surplus funds in the kinds of securities permitted. These include "bonds and notes of the United States, and bills, notes, revenue bonds, and warrants with a maturity from date of purchase of not exceeding six months, issued in anticipation of the collection of taxes or in anticipation of the receipt of assured revenues by any State, county, district, political subdivision, or municipality in the continental United States, including irrigation, drainage and reclamation districts."

Further opportunity to invest surplus funds and to develop a broad discount market is afforded the Federal reserve banks in the authority to "purchase and sell in the open market, at home or abroad, either from or to domestic or foreign banks, firms, corporations or individuals, cable transfers and bankers' acceptances and bills of exchange of the kinds and maturities by this Act made eligible for rediscount, with or without the indorsement of a member bank." The right to deal in cable transfers will give the reserve banks some control over the movements of gold in and out of the country. The exercise of this right will bring the reserve banks into competition with the banks and trust companies now dealing in foreign exchange.

A second provision for open market operations relates to bankers' acceptances. As noted elsewhere, this form of paper is widely used in foreign countries. The method of making a bank acceptance is as follows: A merchant needing credit goes to a banker or an acceptance house, which after proper investigation grants him, for a commission, the right to draw on them for a certain amount. When the draft is presented the banker accepts it, thus making himself responsible for its payment when due. These acceptances are always salable in the open market and are purchased largely by the discount houses and by the joint

stock banks. Hitherto bank acceptances have not been permitted under our banking laws. Under the new Act this prohibition has been lifted in part. Section 13 of the Act provides that "Any member bank may accept drafts or bills of exchange drawn upon it and growing out of transactions involving the importation or exportation of goods having not more than six months' sight to run; but no bank shall accept such bills to an amount equal at any time in the aggregate to more than one-half its paid-up capital stock and surplus."

It will be noted that the privilege of acceptance is limited to bills growing out of foreign trade, and that the total amount of such acceptances by any bank shall not exceed one-half of its paid-up capital and surplus. One draft of the bill proposed to include acceptances of domestic drafts, but this was rejected because of the fear of undue expansion of credit. The acceptor of a draft does not advance any money to the customer; it merely guarantees that the draft will be paid when due. Since the bank, by accepting a bill drawn on it, would not incur a deposit liability against which a fixed reserve would have to be kept, it was feared that banks unused to this practice might be tempted to accept bills beyond the limits of safety. Many believe, however, that a broad discount market cannot be developed until the privilege of acceptance is extended to domestic bills, and that when the new system gets well under way the act will be amended to permit domestic acceptances. On the other hand, it is held that the business practice of this country has become thoroughly wedded to the promissory note as a borrowing instrument, and that there will be comparatively little demand for bank acceptances. In this country, cash payments are encouraged by the granting of trade discounts considerably more favorable than bank discounts. Under such conditions time bills of exchange will not readily come into existence.

It is universally acknowledged that the mere legalizing of bank acceptances will not create an acceptance market.

The acceptance business can be developed only as the result of a large foreign trade to be financed. "In addition," says one authority, "it is difficult to see how American bankers can make much headway in developing their acceptance business until they can succeed in establishing a ready market for the paper which they have accepted in the discount markets of Europe. If European buyers of commercial paper continue to look with relative disfavor upon it, as they have done in the past, then it will be difficult, if not impossible, to get American importers to take 'dollar drafts' and to arrange to finance their transactions entirely through their American banks rather than to follow their present methods. It is very probable that, as time goes on, certain American banks will establish a high credit rating abroad and their acceptances will sell readily. To what extent this will be true is a matter which cannot be foretold."[1]

In this connection it should be noted that the foreign operations of American banks will be greatly aided by the permission to establish foreign branches. With the consent of the Federal Reserve Board the reserve banks are allowed "to open and maintain banking accounts in foreign countries, appoint correspondents, and establish agencies in such countries wheresoever it may deem best for the purpose of purchasing, selling and collecting bills of exchange, and to buy and sell, with or without its indorsement, through such correspondents or agencies, bills of exchange arising out of actual commercial transactions which have not more than ninety days to run and which bear the signature of two or more responsible parties." Not only will such agencies provide an outlet for exchange purchased in the United States, but by standing ready to buy drafts on American bankers drawn in dollars instead of pounds sterling, as at present, they will eventually overcome the prejudice against the former and raise their standing abroad. The status of American banks abroad will be further strengthened by the establishment of for-

[1] Conway and Patterson: The Operation of the New Bank Act, p. 127.

eign branches by national banks. Under the Act any national bank having a capital and surplus of $1,000,000 or more may, subject to the approval of the Reserve Board, establish branches in foreign countries "for the furtherance of the foreign commerce of the United States, and to act, if required to do so, as fiscal agents of the United States." Now that foreign branches are legalized, some of the larger banks, especially in New York, are sure to enter the foreign field, where they will help to establish American credit and promote American trade in the world markets.

188. Control of gold supply.—In an earlier chapter reference was made to the devices employed by the great central banks of Europe to conserve their gold supply, and to the absence under our decentralized banking system of any such controlling authority or machinery. It is believed that under the new system the reserve banks, by virtue of their authority to engage in open market operations, to deal in gold, to buy and sell government securities, and other related activities, will be able to exercise a large measure of control over gold movements.

Several of the devices for controlling the gold supply have been mentioned in connection with the discussion of open market operations and elsewhere, but may here be briefly reviewed. The reserve banks have the right to deal in goldcoin and bullion at home or abroad. When, therefore, more gold is needed, they may bid for it at the weekly gold auction in London or elsewhere, as do the great banks of Europe. This gold may be paid for by means of credits secured by purchases of foreign bills, as previously described, or by the sale of securities held by the reserve banks. These latter include the one-year 3 per cent Treasury notes given in exchange for the 2 per cent government bonds, and the state and minor political securities in which the reserve banks are permitted to invest. Reserve banks may also "contract for loans of gold coin or bullion, giving therefor when necessary acceptable security, including the hypothecation of United States bonds or other securities which Federal reserve banks are authorized to hold."

If this borrowing is done in foreign centers "it will make possible the sale in the United States of exchange below the export point and thus prevent a movement of gold out of the country. If purchased in the United States the gold supply of the market will be turned into the hands of the reserve banks, and released again only on such terms as they may choose to impose. This will result in raising the general discount rate in the United States, and gold exports will be discouraged."[1] Again, the Federal reserve banks may regulate the gold supply by buying and selling foreign bills of exchange in the open discount market of Europe.

The most important power in the control of the gold supply is the right of reserve banks to regulate rediscounting by raising or lowering the discount rate. How this operates can be seen in the usages of the great central banks of Europe. Raising the discount rate increases the interest rate which borrowers must pay for the use of money and so tends to discourage borrowing. On the other hand, the high rates tempt foreign bankers to increase their accounts in local markets.

European experience seems to demonstrate that control of the gold supply can best be secured through the agency of a powerful central bank. It remains to be seen whether this can be accomplished as effectively, or at all, by twelve more or less independent regional banks. Though the several reserve banks will in normal times act independently of each other, and in times of unusual stress for gold be inclined to protect the interests of their own particular district at the expense of other parts of the country, compulsory coöperation is provided for under the direction of the Federal Reserve Board. The Board may permit or even require Federal reserve banks to rediscount the discounted paper of other Federal reserve banks at rates to be fixed by the Board. Finally, if it should become necessary, the Reserve Board has the power to suspend any and every reserve requirement of the Act, both as to reserve

[1] Conway and Patterson: The Operation of the New Bank Act, p. 181.

banks and member banks. This extreme method, which has been compared with the practice of the Bank of England in breaking the Bank Act on a few occasions, may never have to be resorted to, but it is available if made necessary by an extreme emergency.

189. Note issues.—One of the purposes of the Federal Reserve Act, as stated in the preamble, is "to furnish an elastic currency." The new system leaves all forms of currency issued by the Government practically unchanged, but provides for the gradual replacement of national bank notes by notes issued by the Federal reserve banks, and the issue to them at the discretion of the Federal Reserve Board, of emergency currency, to be known as Federal reserve notes. These latter notes are to be obligations of the Government, though issued through the reserve banks upon commercial paper assets, and are expected to supply the element of elasticity in the currency. Two new kinds of notes will thus be introduced into the currency system.

To guard against the possibility of a sudden contraction of the currency caused by the retirement of national bank notes the Federal reserve banks are authorized to purchase bonds and issue circulating notes under the same conditions and regulations as apply to national banks, "except that the issue of such notes shall not be limited to the capital stock of such Federal reserve bank." These notes are to be the obligations of the Federal reserve bank issuing them. As they are secured by bonds in the same way as national bank notes they, obviously, will be just as inelastic. National banks are not required to retire their circulating notes, but after two years from the passage of the Act they have the privilege, for a period of twenty years, of retiring any part or all of such notes. The method of retirement is briefly as follows: A member bank desiring to retire any or all of its circulation will file with the Treasurer of the United States an application to sell its government bonds now held in trust in the Treasury. The Treasurer furnishes a list of such applications to the Federal Reserve Board, which may require the Federal reserve

banks to purchase these bonds at par and accrued interest. The Federal reserve banks buying the bonds are permitted to take out circulating notes up to their par value.

This arrangement is advantageous both to the national banks and to the Government. It gives the banks an opportunity to sell at par their 2 per cent bonds, which without the circulation privilege would be worth in the investment market about 70, and still it provides a new group of bond purchasers, thus sustaining the market for government bonds. The plan for retiring the national bank notes, however, is open to several objections. In the first place it is not obligatory, and so may result only in adding to our inelastic currency another type of note equally inelastic, for the Federal reserve banks may buy bonds and issue notes on exactly the same terms as national banks. The plan for retirement does not go into effect until December 23, 1915, and even then retirement must be very slow. The Federal reserve banks are not permitted to purchase in any one year more than $25,000,000 of the bonds held by the banks against their circulation. Furthermore, since the Act specifically limits the retirement process to twenty years and since the national banks hold over $700,000,000 of these bonds, it is apparent that all the outstanding notes cannot be retired in the time prescribed. At the end of twenty years each bank would be left with approximately one-third of its bonds still on hand. It is generally understood, however, that the currency provisions of the Act are temporary and that considerable modifications will be made by subsequent legislation.

190. Refunding 2 per cent bonds.—The plan for retiring the national bank notes is closely tied up with the disposal of the 2 per cent bonds. As noted above, the Federal reserve banks may be required to purchase annually $25,000,000 of the 2 per cent bonds now held by national banks and may issue against them reserve bank notes. If, however, the reserve banks do not wish to keep these notes out, they may retire them as national banks now do and get in exchange from the Secretary of the Treasury one-

half of the amount in one-year 3 per cent gold notes of the United States and one-half in thirty-year 3 per cent gold bonds without the circulation privilege. But at the time of making the exchange the Federal reserve banks must agree to purchase at the maturity of these notes an equal amount, if so requested by the Secretary of the Treasury, and to renew the obligation annually for thirty years. As stated, the Federal reserve banks have the option of exchanging the notes for more 3 per cent bonds without the circulation privilege. By this arrangement "the burden of the additional one per cent per annum interest charge will fall upon the Government, an arrangement that is entirely proper, since for years it has borrowed at rates lower than are available for any other Government in the world, and has done it by requiring the national banks to buy the bonds as a prerequisite to securing a charter and issuing notes."[1] The substitution of the one-year treasury notes for long-time bonds will open a way to reduce the national debt if the Government has funds to apply to such reduction. The notes will also provide the Federal reserve banks with "a readily marketable asset, the sale of which abroad may prove serviceable in periods of strain, and the domestic sale of which will enable the reserve banks to make their discount rates effective in the money market."[2]

191. Federal reserve notes.—By the issue of Federal reserve notes the new system is expected to provide an elastic currency. The clause providing for these notes reads as follows: "Federal reserve notes, to be issued at the discretion of the Federal Reserve Board, for the purpose of making advances to the Federal reserve banks through the Federal reserve agents as hereinafter set forth, and for no other purpose, are hereby authorized. The said notes shall be obligations of the United States and shall be receivable by all national and member banks and Federal reserve

[1] Conway and Patterson: The Operation of the New Bank Act, p. 141.

[2] O. M. W. Sprague: "The Federal Reserve Act of 1913," *Quarterly Journal of Economics*, Feb., 1914, p. 242.

banks and for all taxes, customs, and other public dues. They shall be redeemed in gold on demand at the Treasury Department of the United States, or in gold or lawful money at any Federal reserve bank." Reserve banks wishing to take out these notes must make application to the local Federal reserve agent and deposit as collateral security an amount of commercial paper which it has rediscounted for member banks, equal to the amount of notes to be taken out. With the approval of the Reserve Board this rediscounted paper may be withdrawn from time to time as it matures, and similar paper substituted. The Board may if it chooses refuse a part or all of any application for notes, and through its Federal reserve agent may impose an interest charge on them. It may also call for additional security at any time.

These notes are issued in denominations of $5, $10, $20, $50 and $100. They bear the distinctive letters and serial numbers assigned by the Reserve Board to the reserve banks through which they are issued. The Comptroller of the Currency is required to have a supply of notes ready for each reserve bank, and in order that they may be immediately available when needed they are to be kept in the Treasury or in the sub-treasury or mint nearest the place of business of each reserve bank. All expenses connected with their issue and retirement must be met by the reserve banks using them. These notes are receivable at par by all reserve banks and all member banks, and also by the United States Government for all public dues; but they are not legal tender in payments to individuals, nor may national banks count them as part of their legal reserves. The total amount of reserve notes that may be issued is limited only by the discretion of the Reserve Board and the supply of rediscounted commercial paper available as collateral.

To prevent over-expansion each Federal reserve bank is required to hold a reserve in gold of not less than 40 per cent against reserve notes in actual circulation and not offset by gold or lawful money deposited with the Federal

reserve agent. A part of this gold reserve, but not less than 5 per cent, must be deposited with the United States Treasury to redeem the notes. To avoid too great rigidity the Reserve Board has the right to suspend this 40 per cent requirement, but to prevent this privilege from degenerating into inflation a check is provided in the requirement that if the gold reserve against reserve notes falls below 40 per cent a graduated tax shall be paid by the reserve bank. This tax shall be not more than 1 per cent per annum on the reserve deficiency below 40 per cent and above 32½ per cent, and not less than 1½ per cent on each 2½ per cent that the reserves fall below 32½ per cent. This tax is paid in the first instance by the reserve bank concerned, but the bank is required to add the tax to the rates of interest fixed for it by the Reserve Board.

The Act makes ample provision for the retirement of reserve notes when they are no longer needed. As previously noted, they may not be counted as lawful money for reserve purposes either by reserve banks or by member banks. It will be to the interest of a member bank, therefore, to deposit these notes with its reserve bank as promptly as possible. The paying out by one reserve bank of the reserve notes of another reserve bank is subject to a penalty of 10 per cent of the amount so paid out. Each reserve bank is required to keep in the Treasury at Washington sufficient gold to redeem the Federal reserve notes issued to it. As notes are presented for redemption at the Treasury, payment will be made from this redemption fund and the redeemed notes returned to the Federal reserve bank concerned, which must then reimburse the fund in the Treasury. If in redeeming these notes the Treasury pays out gold or gold certificates, the Secretary may require reimbursement in like funds. Reserve notes received by the Treasury otherwise than for redemption may be exchanged for gold in the redemption fund or may be returned to the issuing bank for credit to the Government. Should a reserve bank wish to reduce its liability for reserve notes, even if its own notes are not obtainable, it may

deposit with the Federal reserve agent any reserve notes, gold, gold certificates or lawful money.

It is evident that elasticity of note issues—expansion in time of need and contraction when the need has passed—is fully provided for in the reserve notes. They will be promptly available when business calls for more money, and they can be just as promptly retired when the business demand slackens. Not only are they elastic, but they are also safe beyond question, as they are secured, first, by a gold reserve of 40 per cent; second, by the pledge of high-grade discounted paper equal in value to 100 per cent of the notes issued; third, by a first lien on all the assets of the reserve bank putting them out; and, fourth, by the guaranty of the Government.

While the bill was before Congress some attempt was made to discredit the reserve notes as being fiat money, but notes safeguarded by the deposit of prime commercial paper, dollar for dollar, plus a gold reserve of 40 per cent, cannot properly be classed as fiat. Moreover, though the notes are made obligations of the Government, which also undertakes to redeem them at Washington, they are not in any real sense government issues, any more than are national bank notes. As Professor Laughlin well says: "The Treasury has no power to issue them in payment of government expenses, since the initiative must come from the reserve banks, and only on the offer of commercial paper originating in a private business transaction. Although not stated literally, the notes are liabilities of the reserve banks since they must redeem them, and since the notes are a first lien on all the assets of such banks."[1] The obligation of the Government is in addition to the real and primary obligation of the reserve banks and was so added in deference to the prevalent belief that the issue of money is a government function.

The net earnings accruing to the United States from the operations of the Federal reserve banks may, in the discretion of the Secretary of the Treasury, be applied either to

[1] *Journal of Political Economy*, May, 1914, p. 408.

the reduction of the national debt or to supplement the gold reserve held against the United States notes. If applied to the latter purpose it is possible that in the course of years a gold reserve may be accumulated sufficient to redeem the entire $346,000,000 of greenbacks. They could then be retired or allowed to circulate as gold certificates. The Act reaffirms the gold standard and provides that the Secretary of the Treasury may, for the purpose of maintaining the parity of all forms of money and to maintain the gold reserve, borrow gold on the security of United States bonds or of one-year 3 per cent treasury notes, or sell the same if necessary to obtain gold.

192. Danger of inflation.—As a result of our disastrous experience with the greenbacks and free silver there has persisted to this day a lively fear of over-expansion or inflation, as it is generally called. While the Federal Reserve Act was under consideration in Congress the opinion was freely offered that it opened the way to inflation both of the currency and of bank loans. It was contended that, since the Act fixes no limit to the amount of the new reserve notes to be issued, nor provides any effective check upon their issue by means of a surtax, as in the German and Canadian systems and in the Aldrich-Vreeland Act, these notes may be put out in such volume as to drive lawful money out of circulation and lead to a dangerous exportation of gold. It was claimed, further, that the increased supply of cash in the vaults of the banks and set free by the lower bank reserve requirements may encourage bankers to lend money more freely and so stimulate speculation.

As already noted, safeguards against these supposed dangers of inflation are provided in part in the Act itself. The Federal reserve notes cannot be issued at the whim of the Government; they must originate with the Federal reserve banks and can be secured only by the pledge of rediscounted commercial paper which has passed the scrutiny of both the member banks and the Federal reserve agent. These notes are also protected by a 40 per cent

gold reserve, and they may be subjected to a tax imposed by the Reserve Board. They cannot be counted as legal reserves by member banks or reserve banks and one member bank cannot pay out the notes of another, under a penalty of ten per cent of such payment. The danger of over-expansion of credit, however, is in the form of deposits rather than of notes. It has been urged that the restriction upon member banks limiting their loans to any one borrower to ten per cent of the capital and surplus is nullified by the qualification that "this restriction shall not apply to the discount of bills of exchange drawn in good faith against actually existing values." This criticism seems to overlook the fact that the paper eligible for rediscount is limited to "notes, drafts and bills of exchange issued or drawn for agricultural, industrial or commercial purposes," and that the character of such commercial paper is subject to definition or determination by the Reserve Board. Furthermore, paper representing investments or speculative transactions is specifically excluded from the privilege of rediscount. Only paper representing an actual commercial transaction, or "secured by staple agricultural products, or other goods, wares, or merchandise," maturing in the first case within ninety days and in the other within six months, can be rediscounted. Banks are permitted to discount acceptances based on exports and imports up to one-half of their paid-in capital and surplus, but as this practice is not likely to grow rapidly, over-expansion should not be feared from that source. It must be clearly recognized, however, that in the final analysis the real check upon over-expansion of credit rests not upon legal provisions and regulations, but upon the wise and experienced management of the bankers who pass on the paper discounted. Safety depends primarily upon the judgment and wisdom of the men selected to manage the affairs of the several reserve banks, and finally upon the members of the Federal Reserve Board who will have supervision over the system as a whole.

193. Reserves.—The most serious defect in our banking

system in the past has been the scattering of the reserves among twenty-five thousand banks, and the absence of any central reservoir from which these banks could draw cash in times of urgent need. This defect was magnified by the permission given to all national banks, except those located in the three central reserve cities, to keep a part of their legal reserve in other cities. This redepositing of the reserves in the larger cities was in part necessary to allow banks in the smaller cities to provide their customers with exchange on cities where they purchased goods. Banks in reserve cities were willing to pay interest on these bankers' balances because they increased the loanable funds of the bank, no more legal reserve being required than in the case of individual deposits. As a consequence the idle funds of the country and reserve city banks drifted to the central reserve cities, especially New York. Since the New York banks were compelled to stand ready to return these deposits on demand, and since there was no rediscount market where they could convert their discounted paper into cash, these bankers' deposits were employed largely in making call loans to Stock Exchange speculators. Then, when some commercial or financial disturbance occurs and a panic breaks out in New York, "where every panic of the last decade has started," the banks there call their loans and in self-preservation suspend payment. Though the rest of the country may be highly prosperous, banks everywhere follow the lead of New York in suspension, on the theory that they cannot get possession of their reserves in other cities. At such times all banks are further handicapped by the prohibition against lending after their reserves fall below the legal requirement. It should be noted, however, that the failure of the New York banks to return their correspondents' reserves when thus called for "is not due to flagrant disregard of their obligations, but to the defects inherent in the situation, the evils of which they cannot overcome. The reserves are 'fictitious' in that instead of being a cash reserve, as would be indicated by the name, they are paper reserves. That is to say, they have

been built up through the deposit of checks, drafts, and other negotiable paper, and as a matter of fact the New York banks have never had, and could not secure, without a complete disorganization of commerce, the cash equivalent of the redeposited reserves of the country banks with them.''[1]

The new reserve plan created by the Federal Reserve Act provides for the gradual shifting of the deposited reserves of national banks from other national banks in reserve and central reserve cities to the twelve Federal reserve banks. All member banks must hold their reserves either in their own vaults or with the Federal reserve bank of which they are members. Instead, therefore, of the concentration of a considerable part of the reserves in New York, and to a lesser degree in the other central reserve cities, where in times of financial disturbance they have proved unavailable, the reserve funds of member banks will be kept in their own district, where they will be held in such form as to be promptly available to meet any emergency that may arise in that district. Provision is made, also, for one region to come to the aid of another when occasion requires. Though still retaining a specific minimum reserve against deposits, the proportion is reduced, and a distinction is drawn for reserve purposes between time deposits and demand deposits. Demand deposits are defined in the Act as those payable within thirty days, and time deposits comprise ''all deposits payable after thirty days and all savings accounts and certificates of deposit which are subject to not less than thirty days' notice before payment.'' The reduction in the proportion of reserves to be held against demand deposits is as follows: country banks, from 15 per cent to 12 per cent; reserve city banks, from 25 per cent to 15 per cent; and central reserve city banks, from 25 per cent to 18 per cent. In the case of time deposits all banks alike are required to keep a 5 per cent reserve. This reduction in reserve ratios is slightly offset by the provision that the five per

[1] Conway and Patterson: The Operation of the New Bank Act, p. 208.

cent redemption fund held in Washington against outstanding circulation can no longer be counted as part of the reserve.

The Act provides for the gradual withdrawal of reserve funds from existing reserve agents, and after three years, only cash in vaults and balances with Federal reserve banks may be counted as reserves. For a period of twelve months after a Federal reserve bank is officially established, all country bank members must keep two-twelfths and reserve city bank members three-fifteenths of their required reserve on deposit in said Federal reserve bank; for each succeeding six months country banks must deposit an additional twelfth and reserve city banks an additional fifteenth until the total of the former amounts to five-twelfths and of the latter six-fifteenths. Member banks in the central reserve cities must from the outset keep seven-eighteenths of their required reserves with the Federal reserve bank of their district. After the three-year period the distribution of reserves between the member banks and the Federal reserve banks must be as follows: country banks, at least 4/12 in cash in vaults, 5/12 in Federal reserve bank, and 3/12 in either, at the pleasure of the bank; reserve city banks, 6/15 cash in vault, 6/15 in reserve bank, and 3/15 in either; central reserve cities, 6/18 cash in vaults, 7/18 in reserve bank, and 5/18 in either. As will be seen, the transition in reserves will be gradual: for a period of three years member banks may keep a part of their reserves with other banks as heretofore, but though they may continue to keep funds with these correspondents, as they are likely to do until the Federal reserve banks are sufficiently well established to provide equally satisfactory collection and exchange facilities, they cannot after three years count these balances as reserves.

During the three-year period of transition, state banks and trust companies entering the new system are put upon the same basis as national banks by the following provision: "If a State bank or trust company is required by the law of its State to keep its reserve either in its own

vaults or with another State bank or trust company, such reserve deposits so kept in such State bank or trust company shall be construed, within the meaning of this section, as if they were reserve deposits in a national bank in a reserve or central reserve city for a period of three years after the Secretary shall have officially announced the establishment of a Federal reserve bank in the district in which such State bank or trust company is situate. Except as thus provided no member bank shall keep on deposit with any nonmember bank a sum in excess of ten per centum of its own paid-up capital and surplus."[1]

To enable the banks to avoid contraction of their loans, which might otherwise be occasioned by these withdrawals of funds from reserve and central reserve banks and by the payment of subscriptions to the capital stock of the Federal reserve bank, the Act provides that one-half of the required deposit of reserve to be placed in these reserve banks may be received in the form of paper eligible for rediscount.

194. Rigidity of reserve requirements.—As we have seen the new system continues the policy of requiring banks to carry a fixed minimum reserve. Though our own experience has demonstrated the weakness of this principle and the experience of foreign countries has shown the safety and advantage of leaving the question of reserves to the judgment of the banks, it was believed that since we had always been used to a fixed reserve requirement, its omission would bring distrust upon the new system. In the past our banks, especially those in the central reserve cities which carry so large a proportion of the redeposited reserves of other banks, have aimed to keep as close as possible to the legal requirements. Then when some unusual demand or pressure has come, reducing their reserves below

[1] By an amendment presented in March, 1914, but not enacted into law until August, state banks are permitted to continue holding reserves when held by them for other state banks and to have such reserves counted as if they were held by national banks, during the period of thirty-six months within which the system is being put into effect.

the legal minimum, they have had to stop making loans, thus exciting distrust which frequently has deepened into panic.

Under the new system, however, member banks may with greater safety approach the legal limit more closely because they may convert good commercial paper into cash at short notice at the Federal reserve bank. Further elasticity is provided by the authority given the Federal Reserve Board "to suspend for a period not exceeding thirty days, and from time to time to renew such suspension for periods not exceeding fifteen days, any reserve requirements specified in this Act: *Provided,* That it shall establish a graduated tax upon the amounts by which the reserve requirements of this Act may be permitted to fall below the level hereinafter specified." So long as a Federal reserve bank has ample resources to meet the withdrawals of its members and to rediscount their discounted paper it should have no trouble in sustaining its reserves. Every Federal reserve bank is required to maintain reserves in gold or lawful money of not less than 35 per cent against its deposits, and reserves in gold of not less than 40 per cent against its Federal reserve notes in actual circulation and not offset by gold or lawful money deposited with the Federal reserve agent. As these Federal reserve banks are to be the gold reservoirs of the country from which funds can be drawn by member banks in times of need, it is essential that they shall always have adequate reserves. As we have seen, the great central banks of Europe, though subject generally to no reserve requirements, habitually carry reserves of from fifty to seventy-five per cent against their demand liabilities, and it may be that experience will demonstrate to our Federal reserve banks the wisdom of carrying reserves equally high. Our new system provides twelve central banks, instead of one as in Europe, but provision is made for the piping of these reservoirs together through the power of the Reserve Board to compel one Federal reserve bank to rediscount for another.

195. Clearings and collections.—One of the most important

functions of the new reserve system is that of clearing and collecting the checks and drafts which constitute so large a proportion of the credit instruments used in conducting the business of this country. In years past deposit currency has provided a very efficient and convenient method of payment, but it has imposed a heavy toll upon the business of the country through the high charges exacted for collecting checks. The new system is expected to reduce the waste and expense in collecting and transmitting funds.

As to collections, the Act authorizes any Federal reserve bank to receive on deposit from any of its member banks not only cash, but checks and drafts upon solvent banks payable on presentation; or, solely for exchange purposes, to receive from other Federal reserve banks cash and checks and drafts upon solvent member or other Federal reserve banks. Section 16 requires every Federal reserve bank to "receive on deposit at par from member banks or from Federal reserve banks checks and drafts drawn upon any of its depositors, and when remitted by a Federal reserve bank, checks and drafts drawn by any depositor in any other Federal reserve bank or member bank upon funds to the credit of said depositor in said reserve bank or member bank . . . The Federal Reserve Board shall by rule fix the charge to be collected by the member banks from its patrons whose checks are cleared through the Federal reserve bank and the charge which may be imposed for the service of clearing or collection rendered by the Federal reserve bank." Each reserve bank, therefore, must receive at par checks and drafts drawn on member banks in its own district if they are deposited with it by other reserve banks; but the reserve bank may make a charge, to be fixed by the Reserve Board, to a member bank for the collection through another Federal reserve bank, or otherwise, of checks drawn on member banks in another district.

An attempt was made to include in the Act a clause requiring the collection at par of the checks of all member banks all over the country, but this was not pressed owing to the fear that country banks, which would thereby lose

a large source of revenue, would be antagonized and refuse to enter the system. The bill as finally passed contains a provision that "nothing herein contained shall be construed as prohibiting a member bank from charging its actual expense incurred in collecting and remitting funds, or for exchange sold to its patrons." The reserve banks, therefore, are not compelled to accept all checks at par, but only those upon its own member banks and upon the members of other reserve banks if remitted by such reserve banks. The banks, however, will be restricted to moderate charges, and thereby a heavy burden will be lifted from the shoulders of the business man. Moreover, when the system gets into complete operation, the saving of time possible in the collection of foreign items by the reserve banks and their branches will greatly reduce the loss on the non-use of funds in transit.

The establishment of the new system is likely to effect a radical change in the methods of making payments between different parts of the country. Since checks and drafts drawn by member banks on their own reserve bank must be received at par by all other reserve banks, every Federal reserve city and, presumably, each city in which a reserve bank branch is located, will become a par point for the whole country. New York exchange, which heretofore has been the most acceptable form of remittance between different parts of the country, will have no advantage over exchange on any other Federal reserve city. Not only will the new system of exchange add greatly to the prestige and powed of the Federal reserve banks, but it will be the means of effecting an enormous saving in collection charges to the business community.

The Act also provides that the Reserve Board "shall make and promulgate from time to time regulations governing the transfer of funds and charges therefor among Federal reserve banks and their branches, and may at its discretion exercise the functions of a clearing house for such Federal reserve banks, or may designate a Federal reserve bank to exercise such functions, and may also re-

quire each such bank to exercise the functions of a clearing house for its member banks." It is assumed that each reserve bank will become a clearing house for all member banks in its district. Though the work and expense involved in such an arrangement will be very considerable, the process of collection so far as the reserve bank is concerned will be simple, as each item will be charged against the account of the bank upon which it is drawn. Settlements between the banks will be made by transfers on the books of the reserve banks, thus greatly reducing the amount of cash needed.

It has been suggested that each reserve bank, and possibly each of its branches, may act as a clearing house for all member banks of the city in which it is located. Since the reserve bank is required to accept collection items of its members at par, the expense of maintaining the clearing house would then fall upon the reserve bank. The Act provides, however, that the Reserve Board may impose a charge "for the service of clearing or collection rendered by the Federal reserve bank." This opens the way for a shifting of the expense of conducting the clearing house from the reserve banks to member banks through an assessment or other charge upon member banks. If the reserve banks assume the expense of clearing house arrangements and succeed in performing the functions of existing clearing houses these are likely to disappear, though the problem of non-member banks would remain. The advantages of receiving immediate credit at par for all checks and drafts on other banks within the district and of having checks and drafts on themselves pass at par within the district may prove a strong incentive to state banks to enter the system. One of the first real tests of the new system will be in its exercise of this all-important clearing function.

196. Relations of new system to the Treasury.—In a previous chapter reference was made to the clumsy and archaic system of conducting the financial operations of the Government through the Independent Treasury system. The

United States is the only important country in the world that has a Treasury system of this sort, and practically all plans of banking reform that have been proposed in recent years have contemplated its abolition. The chief criticism of the Treasury system has been that it locks up great quantities of money at seasons of the year when the banks and business need it most and releases money to the banks in times of depression when business is sluggish and the banks already have large supplies of idle funds. This condition is not deliberately brought about by the Treasury officials, but is the result of the unscientific fiscal operations of the Government. In recent years, however, successive heads of the Treasury Department have adopted methods designed to correct the most serious defects of the system. More liberal regulations have been made, permitting the use of certified checks in payments to the Treasury instead of cash, and the Treasury has kept a considerable amount of its free cash in the national bank depositaries.

The Independent Treasury system is retained under the new law, which, however, makes possible radical changes in treasury practices. Section 15 of the Act provides as follows: "The moneys held in the general fund of the Treasury, except the five per centum fund for the redemption of outstanding national bank notes and the funds provided in this Act for the redemption of Federal reserve notes may, upon the direction of the Secretary of the Treasury, be deposited in Federal reserve banks, which banks, when required by the Secretary of the Treasury, shall act as fiscal agents of the United States; and the revenues of the Government or any part thereof may be deposited in such banks, and disbursements may be made by checks drawn against such deposits.

"No public funds of the Philippine Islands, or of the postal savings, or any government funds, shall be deposited in the continental United States in any bank not belonging to the system established by this Act: *Provided, however,* That nothing in this Act shall be construed to

deny the right of the Secretary of the Treasury to use member banks as depositaries." As this section shows, the Secretary of the Treasury is given the widest latitude in depositing government funds, except that the funds deposited to redeem national bank notes and Federal reserve notes must be kept in the vaults of the Treasury, and that no government funds may be deposited in banks not members of the system. The Secretary may, thedefore, keep government balances in the Treasury as formerly, or with the national banks as has been the more recent practice, or with the Fededal reserve banks. Furthermore, he may at any time transfer all or any part of the general funds of the Government from one depositary to another. It is obvious that with Treasury funds arrgegating at present between $150,000,000 and $200,00,00 at his disposal, the Secretary of the Treasury may exercise a very potent influence upon the operations of the new system.

It is assumed that the major part of these funds will be deposited with the Federal reserve banks, but this is a matter entirely at the discretion of the Secretary. He is given supreme authority by the following provision of the Act: "Nothing in this Act contained shall be construed as taking away any powers heretofore vested by law in the Secretary of the Treasury which relate to the supervision, management and control of the Treasury Department and bureaus under such department, and wherever any power vested by this Act in the Federal Reserve Board or the Federal reserve agent appears to conflict with the powers of the Secretary of the Treasury, such powers shall be exercised subject to the supervision and control of the Secretary." In view of the possibility that the Federal reserve banks may be used as fiscal agents of the Government and of the probability that vast amounts of government funds will be kept with these banks, thus bringing them into daily and intimate touch with the Treasury Department, it is apparent that sound judgment and sympathetic coöperation must be exercised by both reserve bank

officials and Treasury officials if their mutual operations are to work without friction.

197. New powers of national banks.—The new law grants to national banks several additional powers that will widen their service and their opportunity for profit. Under special permit of the Federal Reserve Board, when not in contravention of state or local law, national banks are given "the right to act as trustee, executor, administrator, or registrar of stocks and bonds under such rules and regulations as the said board may prescribe." As noted in an earlier chapter, trust companies have steadily extended their activities until in many cases they have become active competitors with commercial banks for ordinary commercial business. Now national banks may undertake trust functions, and so can compete with trust companies on even terms. In some states, however, legislation may be necessary to permit national banks to exercise these new functions.

Hitherto national banks have been greatly handicapped in competition with state banks, especially in the West, because of their inability to lend on mortgage security. This disadvantage is now removed. All national banks, except those in central reserve cities, may lend for periods not exceeding five years, 25 per cent of their capital and surplus or 33⅓ per cent of their time deposits on improved and unencumbered farm land within their district up to 50 per cent of the value of the property. The Reserve Board has power to add to the list of cities in which national banks are not permitted to make these farm loans.

Though the national banking act does not give specific authority to national banks to organize savings departments, the competition for deposits and the payment of higher rates of interest on savings than on other accounts by trust companies and other state banks, has led national banks to establish savings departments or to pay interest on savings accounts. Nearly one-half of them now have such departments and altogether they hold over $800,000,000 of savings deposits. The uncertainty as to whether national

banks could enforce their savings department rules has been removed, as the new Act includes in the definition of time deposits "all deposits payable after thirty days, and all savings accounts and certificates of deposits which are subject to not less than thirty days' notice before payment." In some states the investments of savings banks are very strictly limited. National banks under the new law will have an advantage in not being so narrowly restricted in the employment of savings deposits.

Heretofore national banks have not been permitted to have branches in foreign countries. Under the new Act national banks having a capital and surplus of at least $1,000,000 may establish foreign branches, subject to the approval and regulations of the Federal Reserve Board. They may also accept bills of exchange maturing within six months drawn or issued in connection with exports and imports.

198. State banks and the new law.—One of the requisites of banking reform outlined in the previous chapter was solidarity—and unity—of the whole banking system. Since there are at present nearly three times as many banks operating under state charters as national banks it can be seen that this desideratum cannot be attained unless a large proportion of the state banks enter the new system. By the terms of the Act all national banks are required to enter the system prior to December 23, 1915, or forfeit their charters; state banks are not required to enter, but are permitted to do so at any time. Practically all the national banks have made application for membership, but only a very small number of state banks have applied. As no time limit is set for their entrance they seem disposed to watch the operation of the new system until its success is assured.

A comparison of the relative advantages and disadvantages of membership in the new reserve system may serve to indicate the probable attitude of state banks and trust companies toward it. In the first place it should be noted that in several states it is illegal for state banks to own

stock in other banking institutions. Until this prohibition is removed the state banks concerned cannot become members of the Federal reserve system. Many small state banks will be kept out by the requirement that the capital of banks that enter must not be less than the minimum required for national banks in towns of the same population. The smallest capital permitted to national banks is $25,000, but in some states banks may be organized with $10,000 capital. Again, the Federal Reserve Act follows the national bank act in limiting the amount that may be loaned by a member bank to any one borrower to an amount not to exceed 10 per cent of its capital and surplus, while in some states banks may lend 25 or even 50 per cent. Another objection may be found in the strict Federal examinations and reports. Still another objection is found in the higher reserve requirements under the new system than under the state laws, though in a number of the states there is practically no difference in this respect. In the case of time deposits, against which member banks are required to keep a reserve of only 5 per cent, the advantage generally is in favor of the new system. Quite generally city banks and reserve agents have paid interest on the reserve deposits of their country bank correspondents. As the Federal reserve banks will probably not pay interest on deposits, banks entering the system may suffer some loss of income from this source. Most of these objections are invalid when viewed in the light of sound banking experience. In most instances it would be to the advantage of state banks to have higher reserve requirements, stricter examinations, and closer limitations upon their loans.

Among the advantages to state banks of entering the Federal system the most important are: first, the right to rediscount their commercial paper and secure Federal reserve notes in time of need; and, second, the privilege of depositing at par with reserve banks all checks and drafts on other member banks in the district and to have similar items drawn on themselves pass at par within the district. This clearing and collection arrangement when fully worked

out will effect an immense saving to both banks and depositors, and may prove to be the crowning attraction of the new system to state institutions. If the order goes forth that items deposited for collection by member banks only will be received at par by the Federal reserve banks, non-member state banks and trust companies will find their business as collection agents for other banks and their usefulness to their own customers greatly curtailed. To what extent the privilege of rediscounting commercial paper will be advantageous to state banks will depend upon the development of the rediscount practice among banks in general. It provides a means of relief, however, to all member banks when in need of additional ready funds. Non-member banks may, possibly, get help from the reserve banks by securing rediscounts through a member bank, subject to the permission of the Reserve Board, but such permission is not likely to be granted except in the most serious situations.

In this connection it is to be noted that while the reserve requirements of member banks may be higher in some cases than the requirements under state law, they are lower in others, and quite generally lower as regards time deposits. Moreover, non-member banks will probably lose some of their bankers' balances under the provision that "no member bank shall keep on deposit with any non-member bank a sum in excess of ten per centum of its own paid-up capital and surplus." A temporary exception is made to this provision whereby the reserves of state banks that under the law of the state may be kept with another state bank may be counted as reserves within the meaning of the Act for three years after the establishment of a reserve bank in the district. State institutions now acting as depositaries for other banks, unless they enter, will have to give up all but ten per cent of the deposits so held, thus losing a very profitable source of income. By joining the reserve system, banks outside of the central reserve cities, which hitherto have received interest on their redeposited reserves, will be deprived of

this income, assuming that the Federal reserve banks will not pay interest on the reserves kept with them. This may be offset in part, however, by the 6 per cent return that member banks may expect on their stock subscriptions to the reserve banks. Moreover, the loss of interest on reserves will be a small premium to pay for the insurance the Federal reserve system provides against disastrous financial panics, or by the assurance that any solvent bank can get immediate aid in an emergency by rediscounting some of its prime commercial paper. Finally, when the Federal reserve system is thoroughly established, all banks will find that membership in such a powerful, nation-wide banking system under strict Federal supervision and control will enhance their prestige and attract business.

It would be idle to attempt a forecast of the future of the Federal reserve system. It is not perfect by any means, but experience will develop its weaknesses and indicate the lines along which it must be strengthened. Many new and intricate problems will confront the directors of the reserve banks and the Federal Reserve Board. If they adopt a wise and conservative policy, working together in harmonious coöperation, and if the business men of the country adapt their practices to conform to the changes contemplated by the Act, the new system will work well, and in time will be regarded as the greatest achievement in financial legislation in the history of the country.

199. Emergency measures of 1914.—Pending the inauguration of the new system, the Aldrich-Vreeland Act of 1908, which would have expired by limitation June 30, 1914, was extended to June 30, 1915, and the tax on emergency currency authorized by the act was reduced. Under the original act any number of national banks not less than ten, situated in contiguous territory, each having its capital unimpaired and a surplus of not less than 20 per cent, and already having circulating notes outstanding secured by government bonds to an amount

not less than 40 per cent of its capital, might organize a national currency association with a capital of not less than $5,000,000 for the purpose of issuing emergency currency. The Secretary of the Treasury was authorized to accept as security for the emergency currency to be issued to members of such associations, state and municipal bonds and commercial paper at not more than 75 per cent of the cash value of such securities; but no bank was to be permitted to issue circulating notes based on commercial paper alone in excess of 30 per cent of its capital and surplus. The original act provided that the total amount of such outstanding additional circulation should at no time exceed $500,000,000. This emergency currency was to be taxed at the rate of 5 per cent per annum for the first month and an additional tax of 1 per cent per annum for each succeeding month until a maximum of 10 per cent was reached. The Federal Reserve Act amended this law by reducing the tax to 3 per cent per annum for the first three months and an additional ½ per cent per annum for each month until 6 per cent should be reached.

Prior to August, 1914, only a small number of currency associations had been organized, and though a large amount of emergency notes had been printed and stored, ready for immediate use in case of need, no occasion arose for the banks to issue emergency currency. The outbreak of the European war, accompanied as it was by the declaration of moratoria [1] by the principal countries of Europe, the paralysis of international trade and the derangement of foreign exchange operations, the closing of the leading stock exchanges, and the danger of a heavily increased outflow of gold, necessitated prompt measures of financial relief. One of the first steps taken by Congress was to amend the Federal Reserve Act so that the privilege of securing emergency currency under the Aldrich-Vreeland Act might be open to all national banks. By an act passed

[1] A moratorium is an official declaration or decree by the Government postponing all or certain types of maturing debts for a given period.

August 4, 1914, the Secretary of the Treasury was given discretionary power to extend the provisions of the Aldrich-Vreeland law to all national banks having an unimpaired capital and a surplus of at least 20 per cent, irrespective of the amount of their outstanding circulation, and also to permit them to issue circulating notes up to 125 per cent of their capital and surplus, instead of 100 per cent as under the original act. He was also authorized to extend the benefits of the act to "all qualified state banks and trust companies which have joined the Federal Reserve system or which may contract to join within fifteen days after the passage of this Act." The act stipulated that the Secretary should require each bank and currency association to maintain on deposit in the United States Treasury a sum in gold sufficient in his judgment to redeem such notes, but in no event less than 5 per cent. The amount of additional national bank currency issuable under this Act was over $1,000,000,000.

The emergency measure of August 4 authorized the Secretary of the Treasury, at his discretion, to permit national banks not members of the currency associations to issue additional circulation based on state and municipal bonds, but a Treasury circular sent out August 20 stated that the Secretary disapproved direct applications, preferring that all banks desiring additional currency should make their application through a national currency association, and urged that all banks needing additional currency should join a currency association, preferably one located in their own Federal reserve district. By the end of August over forty national currency associations had been organized or had given notice of their intention to organize, and by October 1 a total of over $300,000,000 of emergency currency had been issued. As it was understood that this additional currency was not to be subject to the tax until actually put into circulation, many banks which had no immediate need of more notes took them out and stored them in their vaults so as to be prepared for any emergency.

The practical cessation of all export trade with Europe and the temporary derangement of foreign exchange following the outbreak of the war caused grave apprehension as to the financing of the cotton, tobacco and grain crops. Secretary of the Treasury McAdoo called a conference in Washington, August 24–25, which was attended by bankers and brokers from the Southern states and by government officials, to discuss ways and means of coping with the situation. The Secretary announced that as a means of aiding the cotton interests the Treasury Department had decided to accept from national banks, through their respective national currency associations, as security for the issue of currency, notes secured by warehouse receipts, properly certificated and issued by responsible warehouse companies, for cotton or tobacco, and having not more than four months to run, at 75 per cent of their face value. In explanation of this plan of relief, the Secretary said: "It means that the national banks of this country can borrow to the extent of 70 per cent of their unimpaired capital and surplus on notes secured by warehouse receipts for staple products, not alone cotton, that I think it is safe to lend on."

At this so-called "cotton conference" various ill-considered measures of financial relief were proposed, including a plan of valorization for the cotton crop and a proposal that state banks be permitted to issue circulating notes, but Secretary McAdoo took a firm stand against all valorization schemes and sounded a note of warning against paper money inflation. He said: "There is enough currency authorized by law to-day to wreck the United States of America, and the danger in this situation is that, by ill-considered views and ill-considered actions, we may put out so much inflationary paper money that we will ruin the country. . . . The issue of currency that you are speaking of is currency issued to the national banks of this country upon live assets, and even that currency cannot be issued safely unless those banks put behind it a fair measure of gold reserve, because, after all, in order to get

a safe basis of credit and a safe basis for the conduct of the business of the country you must have a metal base behind this currency proposed to be issued, and therefore the law imposes the duty on the Secretary of the Treasury of requiring that a gold redemption fund, not less than 5 per cent, shall be put behind this identical currency, and that at any time when it becomes necessary in his judgment to require an increase of that redemption fund he shall exact it, and that is exactly what he is going to do. So long as he has power to deal with this situation he intends to see that all these currency issues are safe, because, I tell you, gentlemen, you cannot bring upon this country a greater disaster than an inflation of currency to a point that is going to wreck the whole fabric of credit." The Secretary stated that he was "satisfied that the Government is in a position to aid the banks through the Federal reserve system and the emergency currency act."

At the close of the cotton conference Secretary McAdoo appointed a committee to draft a report embodying suggestions for the solution of the problems presented at the conference. The report of this committee, adopted August 28, approved the treasury plan of issuing currency against notes secured by warehouse receipts for cotton, tobacco and naval stores; and recommended that, to assist the producers to hold their cotton for a price that would minimize their loss until such times as the channels of foreign trade should be opened, loans be made upon a basis of 8 cents per pound for middling cotton, less whatever margin the lender should consider necessary; that warehouse receipts for tobacco and naval stores be accepted as security for loans on a basis that had due reference to their market value; and that notes having longer than four months to run, when secured by the proper warehouse receipts, be accepted for rediscount by the Federal reserve banks and also by the national currency associations as security for additional circulation to the national banks under the provisions of the amended Aldrich-Vreeland Act.

On August 24 the Senate passed without a roll-call the cotton-warehouse bill providing for the Federal licensing and inspection of cotton warehouses. It was thought that this would strengthen the Treasury plan of using warehouse receipts as a basis for the issue of additional currency. Amendments were passed later extending the provisions of the bill to tobacco, naval stores, canned salmon, grain and flaxseed. A clause of this bill stipulated that its provisions should remain in force for only nine months after a treaty of peace had been ratified between Great Britain and Germany, and that in no event should they remain in force longer than two years after the passage of the bill.

As already noted, the outbreak of the war caused an immediate derangement of foreign exchange operations. With the closing of the stock exchanges in Europe, foreign holders of American securities started to dump their holdings on the New York Stock Exchange. This movement made it necessary to close the Exchange on July 30, which was quickly followed by the closing of all the leading stock exchanges in the country. As a further protection to the gold supply most of the large cities resorted to the issue of clearing house loan certificates as in the panic of 1907.

When the war broke out it was estimated that the United States had over $150,000,000 of obligations about to mature in Europe. Since foreign exchange operations were almost completely suspended, and since there was no certainty when and under what conditions Europe would be ready to receive exports to meet these obligations, it became a question whether gold should be shipped to meet this foreign balance or whether our bankers should say to their correspondents abroad that, so long as moratoria existed in Europe, it was necessary to recognize the operation of an informal moratorium on this side in foreign transactions. Many bankers felt that, before shipping gold to London or to Ottawa, where soon after the declaration of war the Bank of England had deposited a large amount

of gold to meet the demand for sterling exchange, they should have some assurance that London would be ready to pay in gold for future shipments of grain and other American products. For the purpose of working out a plan by which American obligations to Europe could be adjusted without shipping gold, the Secretary of the Treasury called a conference of bankers and clearing house representatives from twenty cities to meet with the members of the Federal Reserve Board at Washington, September 4. At this conference a committee of bankers, with Mr. Forgan, of Chicago, as chairman, was appointed to formulate a plan and submit it to the Federal Reserve Board.

The Forgan committee in a report dated September 4 recommended the creation of a fund of $150,000,000 in gold through contributions by the banks to meet our foreign obligations and to clear up the sterling exchange situation. One-sixth of this gold fund was to be paid immediately into the Canadian depositary of the Bank of England, the remainder to be subject to call by the New York committee charged with the duty of fixing the price at which foreign exchange should be bought and sold. When the Federal Reserve Board took up the consideration of this proposal on September 8, it was found that the proposed fund of $150,000,000 included $80,000,000 of obligations of New York City held by European creditors and maturing within the next few months; and that a syndicate of New York bankers had arranged to underwrite this $80,000,000. As a result the bankers' committee made a second report, September 19, recommending that the proposed gold pool be reduced to $100,000,000. This recommendation was approved by the Reserve Board, and a committee of New York bankers was appointed to manage the fund. On September 24 the Board addressed letters to the clearing house associations in the central reserve and reserve cities recommending that they appoint committees to secure from the national banks and state banking institutions of their respective cities their sub-

scriptions to the gold fund, naming the amounts that represented their fair proportions based upon their holdings of gold. The largest contributions to the gold fund were as follows: New York, $45,000,000; Chicago, $16,000,000; Philadelphia, $8,000,000; Boston, $7,000,000; St. Louis, $5,000,000; San Francisco, $3,500,000; Pittsburgh, $3,000,000. The clearing house associations were notified to transfer the contributions of their members to the custody of the Gold Fund Committee in New York. Assurances were received that the entire fund of $100,000,000 would be subscribed and the call for the first installment of 25 per cent was sent out. Some of the members of the Gold Fund Committee believed that this first payment of $25,000,000 would prove sufficient to restore practically normal exchange conditions. In the meantime the committee arranged with nine New York banks to advance $10,000,000 so that the sale of foreign exchange might begin without delay. This gold was taken from the Sub-Treasury in New York and shipped to Ottawa on October 2, and on the following day a sub-committee began passing on applications for checks on London.

200. Organization of Federal Reserve System.—The Federal Reserve Act provided that, as soon as practicable, the Secretary of the Treasury, the Secretary of Agriculture, and the Comptroller of the Currency, acting as "The Reserve Bank Organization Committee," should designate not less than eight or more than twelve cities to be known as Federal reserve cities and divide the continental United States into districts, each to contain only one of such Federal reserve cities. It further provided that the determination of the Organization Committee was not to be subject to review except by the Federal Reserve Board, provided that the districts should "be apportioned with due regard to the convenience and customary course of business."

The Organization Committee held its first meeting December 26, 1913, and announced that it would hold hearings in various important cities on certain fixed dates for the purpose of securing the views of bankers and business

men as to the division of the country into districts and the location of the Federal reserve banks. The points upon which the Organization Committee desired to be informed particularly were: "First, geographical convenience, which involves transpodtation facilities and rapid and easy communication with all parts of the district; second, industrial and commercial development and needs of each section, which involves consideration of the general movement of commodities and of business transactions within the districts and the transfer of funds and exchanges of credits arising therefrom; third, the established custom and trend of business as developed by the present system of bank reserves and checking accounts. In laying out the districts and establishing the headquarters for reserve banks every effort will be made to promote business convenience and normal movements of trade and commerce." The Committee announced that political considerations would not be permitted to influence it in determining these important questions.

The Organization Committee held public hearings in eighteen of the leading cities of the country, and gave every reasonable opportunity to all applicant cities to furnish evidence to support their claims as locations for Federal reserve banks. More than 200 cities were heard through their clearing house associations, chambers of commerce, or other representatives; of these, 37 cities asked to be designated as the headquarters of a Federal reserve bank. The preference of each bank as to the location of the Federal reserve bank with which it desired to be connected was ascertained by an independent card ballot addressed to each of the 7,475 national banks which had formally assented to the provisions of the Federal Reserve Act.

On April 2, 1914, the Organization Committee announced its decision to create twelve Federal reserve districts and to locate a Federal reserve bank in each of the following cities: Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas

Map Showing Federal Reserve Districts

City, Dallas, San Francisco. Among the factors which governed the Committee in selecting the districts and cities chosen were the following: first, the ability of the member banks within the district to provide the minimum of $4,000,000 required for a Federal reserve bank on the basis of six per cent of the capital and surplus of member banks within the district; second, the mercantile, industrial and financial connections existing in each district, and the relations between the various portions of the district and the city selected for the location of the Federal reserve bank; third, the probable ability of the Federal reserve bank in each district to meet the legitimate demands of business, normal or abnormal, in accordance with the spirit and provisions of the Federal Reserve Act; fourth, the fair and equitable division of the available capital for the Federal reserve banks among the districts created; fifth, the general geographical situation of the district, transportation lines, and the facilities for speedy communication between the Federal reserve bank and all portions of the district; and, sixth, the population, area and prevalent business activities of the district, whether agricultural, manufacturing, mining or commercial, its record of growth and development in the past and its prospects for the future. In determining the districts the Committee endeavored to follow state lines as closely as practicable. The twelve districts and the twelve cities selected for the location of Federal reserve banks are as follows:

District No. 1—The New England States, with Boston as the location of the Federal reserve bank.

District No. 2—The State of New York, with New York City as the location of the Federal reserve bank.

District No. 3—New Jersey, Delaware and eastern Pennsylvania. Federal reserve bank at Philadelphia.

District No. 4—Ohio, western Pennsylvania, four counties in northwestern West Virginia, and the eastern part of Kentucky. Federal reserve bank at Cleveland.

District No. 5—The District of Columbia, Maryland, Virginia, North Carolina, South Carolina, and all of West

Virginia except the four counties included in District No. 4. Federal reserve bank at Richmond.

District No. 6—Georgia, Florida, Alabama, southeastern Tennessee, southern Mississippi, and southeastern Louisiana. Federal reserve bank at Atlanta.

District No. 7—Iowa, southern Wisconsin, the southern peninsula of Michigan, northern Illinois, and northern Indiana. Federal reserve bank at Chicago.

District No. 8—Arkansas, most of Missouri, all of Illinois not included in District No. 7, all of Indiana not included in No. 7, all of Kentucky not included in No. 4, and all of Tennessee and Mississippi not included in No. 6. Federal reserve bank at St. Louis.

District No. 9—Montana, North Dakota, South Dakota, Minnesota, and all of Wisconsin and Michigan not included in No. 7. Federal reserve bank at Minneapolis.

District No. 10—Kansas, Nebraska, Colorado, Wyoming, northern Oklahoma, and northern New Mexico. Federal reserve bank at Kansas City.

District No. 11—Texas, all of New Mexico and Oklahoma not included in No. 10, all of Louisiana not included in No. 6, and the southeastern corner of Arizona. Federal reserve bank at Dallas.

District No. 12—California, Washington, Oregon, Idaho, Nevada, Utah and most of Arizona. Federal reserve bank at San Francisco.

The Committee announced that it was impressed with the growth and development of Washington, Oregon and Idaho, but that on the basis of six per cent of the capital and surplus of the banks which had applied for membership, that section could not provide the $4,000,000 minimum capital stock required by the law. The Committee stated that, "with the continued growth of that region, it is reasonable to expect that in a few years the capital and surplus of its member banks will be sufficient to justify the creation of an additional Federal reserve district, at which time application may be made to the Congress for a grant of the necessary authority." The Committee ex-

plained that it was not a part of their duty to locate branches of the Federal reserve banks, but that all the material it had collected would be placed at the disposal of the Federal reserve banks and the Federal Reserve Board when organized and ready to consider the establishment of branch banks.

The following table, issued by the Organization Committee, shows the area, population, number of national banks and state banks and trust companies which on April 1, 1914, had applied for membership in the new system, with the amount of their capital and the aggregate of their capital subscription to the Federal reserve banks:

District No.	Reserve City	Area sq. miles	Population	No. Banks	Capital and Surplus	6 per cent. Subscription
1	Boston	66,465	6,557,841	446	$165,529,010	$9,931,740
2	New York	49,170	9,113,279	478	343,693,437	20,621,606
3	Philadelphia	39,865	8,110,217	800	216,340,213	12,980,412
4	Cleveland	183,995	7,961,022	724	192,147,258	11,528,835
5	Richmond	173,818	8,519,313	475	105,064,483	6,303,868
6	Atlanta	233,860	6,695,341	372	77,356,913	4,641,415
7	Chicago	176,940	12,630,383	984	211,068,338	12,664,100
8	St. Louis	146,474	6,726,611	434	80,717,981	4,843,079
9	Minneapolis	437,930	5,724,893	687	78,381,081	4,702,864
10	Kansas City	509,649	6,306,850	835	93,065,912	5,583,955
11	Dallas	404,826	5,310,561	726	92,003,123	5,520,187
12	San Francisco	693,658	5,389,303	514	130,423,422	7,825,405
	Total	3,016,650	89,045,616	7,475	$1,785,791,171	$107,147,470

INCLUDING STATE BANKS AND TRUST COMPANIES THAT HAVE APPLIED FOR MEMBERSHIP UP TO APRIL 1, 1914.

District No.	Reserve City	No. Banks	Capital and Surplus	6 per Cent. Subscription
1	Boston	446	$165,529,010	$9,931,740
2	New York	479	344,793,437	20,687,616
3	Philadelphia	801	216,550,213	12,993,013
4	Cleveland	726	193,697,258	11,621,835
5	Richmond	484	109,054,683	6,543,281
6	Atlanta	382	78,379,663	4,702,780
7	Chicago	999	219,198,760	13,151,925
8	St. Louis	445	103,655,397	6,219,323
9	Minneapolis	687	78,381,081	4,702,864
10	Kansas City	838	93,248,612	5,594,916
11	Dallas	732	93,901,523	5,634,091
12	San Francisco	529	135,258,732	8,115,524
	Totals	7,548	$1,831,648,369	$109,898,902

The announcement of the selection of Federal reserve districts and Federal reserve cities naturally caused loud protests from cities that expected to be named as headquarters for Federal reserve banks. Resolutions of protest against the decisions of the Organization Committee were adopted by the commercial bodies of various cities, including New Orleans, Baltimore, Pittsburgh, Denver, Omaha and others. The Senate by resolution called upon the Organization Committee to file copies of all briefs and written arguments made by each city applying to the Committee for the location of a Federal reserve bank, together with the poll of the banks and the reasons relied upon by the Committee in fixing the boundaries of the reserve districts and locating the reserve cities. On April 10, 1914, the Organization Committee issued a statement in defense of its action, explaining that it had "refused to be influenced by the purely local and selfish claims of cities or individuals, and discharged the duty imposed upon it by Congress, after exhaustive investigation and study of the entire country, with unbiased minds and according to its best judgment. Congress constituted the Committee a court and gave the Federal Reserve Board the power of review. Disappointed competitors should seek a remedy through the orderly processes the law prescribes." The statement of the Committee explained in detail why New Orleans, Baltimore, Omaha and Denver, which had expected to be chosen as headquarters of Federal reserve districts, had not been selected. These and other cities continued to voice their dissatisfaction, and later, when the Federal Reserve Board was chosen, it announced that it would hear the claims of these and other protesting cities.

Upon the expiration of the sixty-day period for acceptance of the Federal Reserve Act—February 23—7,465 national banks had accepted, 18 had rejected, and 10 had not been heard from. Meantime the Organization Committee sought the opinion of the Attorney General of each state as to whether its laws would bar state banks from joining

the new system. The Committee also obtained, for the subsequent use of the Reserve Board, the views of clearing house associations and bankers as to what should constitute commercial paper within the meaning of the Federal Reserve Act. Clearing house associations were asked also to make suggestions as to the clearing house functions to be undertaken by Federal reserve banks and their branches.

On April 8, 1914, the Secretary of the Organization Committee notified all prospective member banks to forward their subscriptions to the Federal reserve banks of their respective districts within thirty days, and duplicate forms of application for stock, approved by the Committee, were transmitted to the banks by the Comptroller of the Currency. A large number of banks interpreted this notice to subscribe as a call for the payment of the first installment of their subscriptions and sent checks and currency to the Committee. It promptly returned these cash payments, and in a press notice, given out April 13, announced that it was not the purpose to call for the payment of the subscriptions until the details of the organization were more nearly completed and the reserve banks were ready to be put in operation. On April 30, the Organization Committee sent out a second notice, urging prospective member banks to forward their applications for stock subscriptions to the Federal reserve banks not later than May 8, thirty days after notice. On that date the minimum capital prescribed by the Act had been subscribed in every district with a large margin, making it unnecessary to offer stock to the public or to the Government. Five banks in each district were than designated by the Committee to execute the certificate of organization for each Federal reserve bank, thus completing the incorporation of the twelve reserve banks.

The next step in the process of organizing the new system was the election by the member banks of each Federal reserve district of three directors of Class A and three of Class B, under the provisions of Section 4 of the

Act. Early in June the Organization Committee notified all member banks to elect, by their board of directors, a district reserve elector and to nominate a candidate for Class A director and a candidate for Class B director for the Federal reserve bank of their respective districts. On July 4–6 preferential ballots were mailed to the district reserve electors of all banks which had certified to the Committee the names of their electors, and the Committee announced that the polls would be closed August 1, after which no votes received for Class A and Class B directors would be counted.

201. Appointment of Federal Reserve Board.—On June 15, the President sent to the Senate the names of five nominees who, together with the Secretary of the Treasury and the Comptroller of the Currency, as ex-officio members, should constitute the Federal Reserve Board. The five names submitted were: Charles S. Hamlin of Boston, Assistant Secretary of the Treasury, to serve two years; Paul M. Warburg of New York, to serve four years; Thomas D. Jones of Chicago, to serve six years; W. P. G. Harding of Birmingham, to serve eight years; and Adolph C. Miller of San Francisco, Assistant Secretary of the Interior, to serve ten years. The names of Messrs. Hamlin, Harding and Miller were promptly confirmed by the Senate, but opposition developed to the confirmation of Mr. Warburg and Mr. Jones. They were summoned to appear before the Senate, where, in the case of Mr. Jones, opposition became so pronounced that, to avoid causing embarrassment to the President, whose personal choice he was, he requested that his name be withdrawn. The President then named Frederick A. Delano of Chicago, who was confirmed, thus completing the membership, and the Federal Reserve Board was sworn into office August 10, 1914. The President designated Mr. Hamlin as Governor and Mr. Delano as Vice-Governor of the Board.

The members of the first Federal Reserve Board and their terms of office are as follows:

Charles S. Hamlin, Governor.....two years
Frederick A. Delano, Vice-Governor.....six years
Paul M. Warburg.....four years
W. P. G. Harding.....eight years
Adolph C. Miller.....ten years
William G. McAdoo, Secretary of the Treasury, ex-officio
John Skelton Williams, Comptroller of the Currency, ex-officio

On the day the Federal Reserve Board was sworn into office, August 10, 1914, the Reserve Bank Organization Committee announced the names of the successful candidates for directors of Class A and Class B of the twelve Federal reserve banks. Directors of Class C, selected by the Federal Reserve Board, were not announced until October. For the first few weeks after appointment the Reserve Board was largely engrossed with emergency measures to relieve the strained situation in credit and foreign exchange. Meantime the Board was confronted with the task of formulating rules and regulations, organizing the various Federal reserve banks, selecting quarters and employees, and arranging a multitude of details in advance of the actual inauguration of the new system. Sufficient progress had been made by early autumn, however, for the announcement to be made by the Secretary of the Treasury that the twelve Federal reserve banks would open simultaneously on November 16, 1914.

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APPENDIX

Federal Reserve Act

[Public—No. 43—63d Congress]

[H. R. 7837]

An Act to provide for the establishment of Federal reserve banks, to furnish an elastic currency, to afford means of rediscounting commercial paper, to establish a more effective supervision of banking in the United States, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the short title of this Act shall be the "Federal Reserve Act."

Wherever the word "bank" is used in this Act, the word shall be held to include State bank, banking association, and trust company, except where national banks or Federal reserve banks are specifically referred to.

The terms "national bank" and "national banking association" used in this Act shall be held to be synonymous and interchangeable. The term "member bank" shall be held to mean any national bank, State bank, or bank or trust company which has become a member of one of the reserve banks created by this Act. The term "board" shall be held to mean Federal Reserve Board; the term "district" shall be held to mean Federal reserve district; the term "reserve bank" shall be held to mean Federal reserve bank.

FEDERAL RESERVE DISTRICTS

Sec. 2. As soon as practicable, the Secretary of the Treasury, the Secretary of Agriculture and the Comptroller of the Currency, acting as "The Reserve Bank Organization Committee," shall designate not less than eight nor more than twelve cities to be known as Federal reserve cities, and shall divide the continental United States, excluding Alaska, into districts, each district to contain only one of such Federal reserve cities. The determination of said organization committee shall not be subject to review except by the Federal Reserve Board when organized: *Provided*, That the districts shall be apportioned with due regard to the convenience and customary course of

business and shall not necessarily be coterminous with any State or States. The districts thus created may be readjusted and new districts may from time to time be created by the Federal Reserve Board, not to exceed twelve in all. Such districts shall be known as Federal reserve districts and may be designated by number. A majority of the organization committee shall constitute a quorum with authority to act.

Said organization committee shall be authorized to employ counsel and expert aid, to take testimony, to send for persons and papers, to administer oaths, and to make such investigation as may be deemed necessary by the said committee in determining the reserve districts and in designating the cities within such districts where such Federal reserve banks shall be severally located. The said committee shall supervise the organization in each of the cities designated of a Federal reserve bank, which shall include in its title the name of the city in which it is situated, as "Federal Reserve Bank of Chicago."

Under regulations to be prescribed by the organization committee, every national banking association in the United States is hereby required, and every eligible bank in the United States and every trust company within the District of Columbia, is hereby authorized to signify in writing, within sixty days after the passage of this Act, its acceptance of the terms and provisions hereof. When the organization committee shall have designated the cities in which Federal reserve banks are to be organized, and fixed the geographical limits of the Federal reserve districts, every national banking association within that district shall be required within thirty days after notice from the organization committee, to subscribe to the capital stock of such Federal reserve bank in a sum equal to six per centum of the paid-up capital stock and surplus of such bank, one-sixth of the subscription to be payable on call of the organization committee or of the Federal Reserve Board, one-sixth within three months and one-sixth within six months thereafter, and the remainder of the subscription, or any part thereof, shall be subject to call when deemed necessary by the Federal Reserve Board, said payments to be in gold or gold certificates.

The shareholders of every Federal reserve bank shall be held individually responsible, equally and ratably, and not one for another, for all contracts, debts, and engagements of such bank to the extent of the amount of their subscription to such stock at the par value thereof in addition to the amount subscribed, whether such subscriptions have been paid up in whole or in part, under the provisions of this Act.

Any national bank failing to signify its acceptance of the terms of this Act within the sixty days aforesaid, shall cease to act as a reserve agent, upon thirty days' notice, to be given within the discretion of the said organization committee or of the Federal Reserve Board.

Should any national banking association in the United States now organized fail within one year after the passage of this Act to become a member bank or fail to comply with any of the provisions of this Act applicable thereto, all of the rights, privileges, and franchises of such association granted to it under the national-bank Act,

or under the provisions of this Act, shall be thereby forfeited. Any noncompliance with or violation of this Act shall, however, be determined and adjudged by any court of the United States of competent jurisdiction in a suit brought for that purpose in the district or territory in which such bank is located, under direction of the Federal Reserve Board, by the Comptroller of the Currency in his own name before the association shall be declared dissolved. In cases of such noncompliance or violation, other than the failure to become a member bank under the provisions of this Act, every director who participated in or assented to the same shall be held liable in his personal or individual capacity for all damages which said bank, its shareholders, or any other person shall have sustained in consequence of such violation.

Such dissolution shall not take away or impair any remedy against such corporation, its stockholders or officers, for any liability or penalty which shall have been previously incurred.

Should the subscriptions by banks to the stock of said Federal reserve banks or any one or more of them be, in the judgment of the organization committee, insufficient to provide the amount of capital required therefor, then and in that event the said organization committee may, under conditions and regulations to be prescribed by it, offer to public subscription at par such an amount of stock in said Federal reserve banks, or any one or more of them, as said committee shall determine, subject to the same conditions as to payment and stock liability as provided for member banks.

No individual, copartnership, or corporation other than a member bank of its district shall be permitted to subscribe for or to hold at any time more than $25,000 par value of stock in any Federal reserve bank. Such stock shall be known as public stock and may be transferred on the books of the Federal reserve bank by the chairman of the board of directors of such bank.

Should the total subscriptions by banks and the public to the stock of said Federal reserve banks, or any one or more of them, be, in the judgment of the organization committee, insufficient to provide the amount of capital required therefor, then and in that event the said organization committee shall allot to the United States such an amount of said stock as said committee shall determine. Said United States stock shall be paid for at par out of any money in the Treasury not otherwise appropriated, and shall be held by the Secretary of the Treasury and disposed of for the benefit of the United States in such manner, at such times, and at such price, not less than par, as the Secretary of the Treasury shall determine.

Stock not held by member banks shall not be entitled to voting power.

The Federal Reserve Board is hereby empowered to adopt and promulgate rules and regulations governing the transfers of said stock.

No Federal reserve bank shall commence business with a subscribed capital less than $4,000,000. The organization of reserve districts and Federal reserve cities shall not be construed as changing the present status of reserve cities and central reserve cities, except in so far as this Act changes the amount of reserves that may be

carried with approved reserve agents located therein. The organization committee shall have power to appoint such assistants and incur expenses in carrying out the provisions of this Act as it shall deem necessary, and such expenses shall be payable by the Treasurer of the United States upon voucher approved by the Secretary of the Treasury, and the sum of $100,000, or so much thereof as may be necessary, is hereby appropriated, out of any moneys in the Treasury not otherwise appropriated, for the payment of such expenses.

BRANCH OFFICES

SEC. 3. Each Federal reserve bank shall establish branch banks within the Federal reserve district in which it is located and may do so in the district of any Federal reserve bank which may have been suspended. Such branches shall be operated by a board of directors under rules and regulations approved by the Federal Reserve Board. Directors of branch banks shall possess the same qualifications as directors of the Federal reserve banks. Four of said directors shall be selected by the reserve bank and three by the Federal Reserve Board, and they shall hold office during the pleasure, respectively, of the parent bank and the Federal Reserve Board. The reserve bank shall designate one of the directors as manager.

FEDERAL RESERVE BANKS

SEC. 4. When the organization committee shall have established Federal reserve districts as provided in section two of this Act, a certificate shall be filed with the Comptroller of the Currency showing the geographical limits of such districts and the Federal reserve city designated in each of such districts. The Comptroller of the Currency shall thereupon cause to be forwarded to each national bank located in each district, and to such other banks declared to be eligible by the organization committee which may apply therefor, an application blank in form to be approved by the organization committee, which blank shall contain a resolution to be adopted by the board of directors of each bank executing such application, authorizing a subscription to the capital stock of the Federal reserve bank organizing in that district in accordance with the provisions of this Act.

When the minimum amount of capital stock prescribed by this Act for the organization of any Federal reserve bank shall have been subscribed and allotted, the organization committee shall designate any five banks of those whose applications have been received, to execute a certificate of organization, and thereupon the banks so designated shall, under their seals, make an organization certificate which shall specifically state the name of such Federal reserve bank, the territorial extent of the district over which the operations of such Federal reserve bank are to be carried on, the city and State in which said bank is to be located, the amount of capital stock and the number of shares into which the same is divided, the name and place of doing business of each bank executing such certificate, and of all banks which have subscribed to the capital stock of such

Federal reserve bank and the number of shares subscribed by each, and the fact that the certificate is made to enable those banks executing same, and all banks which have subscribed or may thereafter subscribe to the capital stock of such Federal reserve bank, to avail themselves of the advantages of this Act.

The said organization certificate shall be acknowledged before a judge of some court of record or notary public; and shall be, together with the acknowledgment thereof, authenticated by the seal of such court, or notary, transmitted to the Comptroller of the Currency, who shall file, record and carefully preserve the same in his office.

Upon the filing of such certificate with the Comptroller of the Currency as aforesaid, the said Federal reserve bank shall become a body corporate and as such, and in the name designated in such organization certificate, shall have power—

First. To adopt and use a corporate seal.

Second. To have succession for a period of twenty years from its organization unless it is sooner dissolved by an Act of Congress, or unless its franchise becomes forfeited by some violation of law.

Third. To make contracts.

Fourth. To sue and be sued, complain and defend, in any court of law or equity.

Fifth. To appoint by its board of directors, such officers and employees as are not otherwise provided for in this Act, to define their duties, require bonds of them and fix the penalty thereof, and to dismiss at pleasure such officers or employees.

Sixth. To prescribe by its board of directors, by-laws not inconsistent with law, regulating the manner in which its general business may be conducted, and the privileges granted to it by law may be exercised and enjoyed.

Seventh. To exercise by its board of directors, or duly authorized officers or agents, all powers specifically granted by the provisions of this Act and such incidental powers as shall be necessary to carry on the business of banking within the limitations prescribed by this Act.

Eighth. Upon deposit with the Treasurer of the United States of any bonds of the United States in the manner provided by existing law relating to national banks, to receive from the Comptroller of the Currency circulating notes in blank, registered and countersigned as provided by law, equal in amount to the par value of the bonds so deposited, such notes to be issued under the same conditions and provisions of law as relate to the issue of circulating notes of national banks secured by bonds of the United States bearing the circulating privilege, except that the issue of such notes shall not be limited to the capital stock of such Federal reserve bank.

But no Federal reserve bank shall transact any business except such as is incidental and necessarily preliminary to its organization until it has been authorized by the Comptroller of the Currency to commence business under the provisions of this Act.

Every Federal reserve bank shall be conducted under the supervision and control of a board of directors.

The board of directors shall perform the duties usually apper-

taining to the office of directors of banking associations and all such duties as are prescribed by law.

Said board shall administer the affairs of said bank fairly and impartially and without discrimination in favor of or against any member bank or banks and shall, subject to the provisions of law and the orders of the Federal Reserve Board, extend to each member bank such discounts, advancements and accommodations as may be safely and reasonably made with due regard for the claims and demands of other member banks.

Such board of directors shall be selected as hereinafter specified and shall consist of nine members, holding office for three years, and divided into three classes, designated as classes A, B, and C.

Class A shall consist of three members, who shall be chosen by and be representative of the stock-holding banks.

Class B shall consist of three members, who at the time of their election shall be actively engaged in their district in commerce, agriculture or some other industrial pursuit.

Class C shall consist of three members who shall be designated by the Federal Reserve Board. When the necessary subscriptions to the capital stock have been obtained for the organization of any Federal reserve bank, the Federal Reserve Board shall appoint the class C directors and shall designate one of such directors as chairman of the board to be selected. Pending the designation of such chairman, the organization committee shall exercise the powers and duties appertaining to the office of chairman in the organization of such Federal reserve bank.

No Senator or Representative in Congress shall be a member of the Federal Reserve Board or an officer or a director of a Federal reserve bank.

No director of class B shall be an officer, director, or employee of any bank.

No director of class C shall be an officer, director, employee, or stockholder of any bank.

Directors of class A and class B shall be chosen in the following manner:

The chairman of the board of directors of the Federal reserve bank of the district in which the bank is situated or, pending the appointment of such chairman, the organization committee shall classify the member banks of the district into three general groups or divisions. Each group shall contain as nearly as may be one-third of the aggregate number of the member banks of the district and shall consist, as nearly as may be, of banks of similar capitalization. The groups shall be designated by number by the chairman.

At a regularly called meeting of the board of directors of each member bank in the district it shall elect by ballot a district reserve elector and shall certify his name to the chairman of the board of directors of the Federal reserve bank of the district. The chairman shall make lists of the district reserve electors thus named by banks in each of the aforesaid three groups and shall transmit one list to each elector in each group.

Each member bank shall be permitted to nominate to the chairman one candidate for director of class A and one candidate for

director of class B. The candidates so nominated shall be listed by the chairman, indicating by whom nominated, and a copy of said list shall, within fifteen days after its completion, be furnished by the chairman to each elector.

Every elector shall, within fifteen days after the receipt of the said list, certify to the chairman his first, second, and other choices of a director of class A and class B, respectively, upon a preferential ballot, on a form furnished by the chairman of the board of directors of the Federal reserve bank of the district. Each elector shall make a cross opposite the name of the first, second, and other choices for a director of class A and for a director of class B, but shall not vote more than one choice for any one candidate.

Any candidate having a majority of all votes cast in the column of first choice shall be declared elected. If no candidate have a majority of all the votes in the first column, then there shall be added together the votes cast by the electors for such candidates in the second column and the votes cast for the several candidates in the first column. If any candidate then have a majority of the electors voting, by adding together the first and second choices, he shall be declared elected. If no candidate have a majority of electors voting when the first and second choices shall have been added, then the votes cast in the third column for other choices shall be added together in like manner, and the candidate then having the highest number of votes shall be declared elected. An immediate report of election shall be declared.

Class C directors shall be appointed by the Federal Reserve Board. They shall have been for at least two years residents of the district for which they are appointed, one of whom shall be designated by said board as chairman of the board of directors of the Federal reserve bank and as "Federal reserve agent." He shall be a person of tested banking experience; and in addition to his duties as chairman of the board of directors of the Federal reserve bank he shall be required to maintain under regulations to be established by the Federal Reserve Board a local office of said board on the premises of the Federal reserve bank. He shall make regular reports to the Federal Reserve Board, and shall act as its official representative for the performance of the functions conferred upon it by this Act. He shall receive an annual compensation to be fixed by the Federal Reserve Board and paid monthly by the Federal reserve bank to which he is designated. One of the directors of class C, who shall be a person of tested banking experience, shall be appointed by the Federal Reserve Board as deputy chairman and deputy Federal reserve agent to exercise the powers of the chairman of the board and Federal reserve agent in case of absence or disability of his principal.

Directors of Federal reserve banks shall receive, in addition to any compensation otherwise provided, a reasonable allowance for necessary expenses in attending meetings of their respective boards, which amount shall be paid by the respective Federal reserve banks. Any compensation that may be provided by boards of directors of Federal reserve banks for directors, officers or employees shall be subject to the approval of the Federal Reserve Board.

The Reserve Bank Organization Committee may, in organizing

Federal reserve banks, call such meetings of bank directors in the several districts as may be necessary to carry out the purposes of this Act, and may exercise the functions herein conferred upon the chairman of the board of directors of each Federal reserve bank pending the complete organization of such bank.

At the first meeting of the full board of directors of each Federal reserve bank, it shall be the duty of the directors of classes A, B and C, respectively, to designate one of the members of each class whose term of office shall expire in one year from the first of January nearest to date of such meeting, one whose term of office shall expire at the end of two years from said date, and one whose term of office shall expire at the end of three years from said date. Thereafter every director of a Federal reserve bank chosen as hereinbefore provided shall hold office for a term of three years. Vacancies that may occur in the several classes of directors of Federal reserve banks may be filled in the manner provided for the original selection of such directors, such appointees to hold office for the unexpired terms of their predecessors.

STOCK ISSUES: INCREASE AND DECREASE OF CAPITAL

Sec. 5. The capital stock of each Federal reserve bank shall be divided into shares of $100 each. The outstanding capital stock shall be increased from time to time as member banks increase their capital stock and surplus or as additional banks become members, and may be decreased as member banks reduce their capital stock or surplus or cease to be members. Shares of the capital stock of Federal reserve banks owned by member banks shall not be transferred or hypothecated. When a member bank increases its capital stock or surplus, it shall thereupon subscribe for an additional amount of capital stock of the Federal reserve bank of its district equal to six per centum of the said increase, one-half of said subscription to be paid in the manner hereinbefore provided for original subscription, and one-half subject to call of the Federal Reserve Board. A bank applying for stock in a Federal reserve bank at any time after the organization thereof must subscribe for an amount of the capital stock of the Federal reserve bank equal to six per centum of the paid-up capital stock and surplus of said applicant bank, paying therefor its par value plus one-half of one per centum a month from the period of the last dividend. When the capital stock of any Federal reserve bank shall have been increased either on account of the increase of capital stock of member banks or on account of the increase in the number of member banks, the board of directors shall cause to be executed a certificate to the Comptroller of the Currency showing the increase in capital stock, the amount paid in, and by whom paid. When a member bank reduces its capital stock it shall surrender a proportionate amount of its holdings in the capital of said Federal reserve bank, and when a member bank voluntarily liquidates it shall surrender all of its holdings of the capital stock of said Federal reserve bank and be released from its stock subscription not previously called. In either case the shares surrendered shall be canceled and the member bank shall re-

ceive in payment therefor, under regulations to be prescribed by the Federal Reserve Board, a sum equal to its cash-paid subscriptions on the shares surrendered and one-half of one per centum a month from the period of the last dividend, not to exceed the book value thereof, less any liability of such member bank to the Federal reserve bank.

SEC. 6. If any member bank shall be declared insolvent and a receiver appointed therefor, the stock held by it in said Federal reserve bank shall be canceled, without impairment of its liability, and all cash-paid subscriptions on said stock, with one-half of one per centum per month from the period of last dividend, not to exceed the book value therof, shall be first applied to all debts of the insolvent member bank to the Federal reserve bank, and the balance, if any, shall be paid to the receiver of the insolvent bank. Whenever the capital stock of a Federal reserve bank is reduced, either on account of a reduction in capital stock of any member bank or of the liquidation or insolvency of such bank, the board of directors shall cause to be executed a certificate to the Comptroller of the Currency showing such reduction of capital stock and the amount repaid to such bank.

DIVISION OF EARNINGS

SEC. 7. After all necessary expenses of a Federal reserve bank have been paid or provided for, the stockholders shall be entitled to receive an annual dividend of six per centum on the paid-in capital stock, which dividend shall be cumulative. After the aforesaid dividend claims have been fully met, all the net earnings shall be paid to the United States as a franchise tax, except that one-half of such net earnings shall be paid into a surplus fund until it shall amount to forty per centum of the paid-in capital stock of such bank.

The net earnings derived by the United States from Federal reserve banks shall, in the discretion of the Secretary, be used to supplement the gold reserve held against outstanding United States notes, or shall be applied to the reduction of the outstanding bonded indebtedness of the United States under regulations to be prescribed by the Secretary of the Treasury. Should a Federal reserve bank be dissolved or go into liquidation, any surplus remaining, after the payment of all debts, dividend requirements as hereinbefore provided, and the par value of the stock, shall be paid to and become the property of the United States and shall be similarly applied.

Federal reserve banks, including the capital stock and surplus therein, and the income derived therefrom shall be exempt from Federal, State, and local taxation, except taxes upon real estate.

SEC. 8. Section fifty-one hundred and fifty-four, United States Revised Statutes, is hereby amended to read as follows:

Any bank incorporated by special law of any State or of the United States or organized under the general laws of any State or of the United States and having an unimpaired capital sufficient to entitle it to become a national banking association under the provisions of the existing laws may, by the vote of the shareholders owning not less than fifty-one per centum of the capital stock of

such bank or banking association, with the approval of the Comptroller of the Currency be converted into a national banking association, with any name approved by the Comptroller of the Currency:

Provided, however, That said conversion shall not be in contravention of the State law. In such case the articles of association and organization certificate may be executed by a majority of the directors of the bank or banking institution, and the certificate shall declare that the owners of fifty-one per centum of the capital stock have authorized the directors to make such certificate and to change or convert the bank or banking institution into a national association. A majority of the directors, after executing the articles of association and the organization certificate, shall have power to execute all other papers and to do whatever may be required to make its organization perfect and complete as a national association. The shares of any such bank may continue to be for the same amount each as they were before the conversion, and the directors may continue to be directors of the association until others are elected or appointed in accordance with the provisions of the statutes of the United States. When the Comptroller has given to such bank or banking association a certificate that the provisions of this Act have been complied with, such bank or banking association, and all its stockholders, officers, and employees, shall have the same powers and privileges, and shall be subject to the same duties, liabilities, and regulations, in all respects, as shall have been prescribed by the Federal Reserve Act and by the national banking Act for associations originally organized as national banking associations.

STATE BANKS AS MEMBERS

SEC. 9. Any bank incorporated by special law of any State, or organized under the general laws of any State or of the United States, may make application to the reserve bank organization committee, pending organization, and thereafter to the Federal Reserve Board for the right to subscribe to the stock of the Federal reserve bank organized or to be organized within the Federal reserve district where the applicant is located. The organization committee or the Federal Reserve Board, under such rules and regulations as it may prescribe, subject to the provisions of this section, may permit the applying bank to become a stockholder in the Federal reserve bank of the district in which the applying bank is located. Whenever the organization committee or the Federal Reserve Board shall permit the applying bank to become a stockholder in the Federal reserve bank of the district, stock shall be issued and paid for under the rules and regulations in this Act provided for national banks which become stockholders in Federal reserve banks.

The organization committee or the Federal Reserve Board shall establish by-laws for the general government of its conduct in acting upon applications made by the State banks and banking associations and trust companies for stock ownership in Federal reserve banks. Such by-laws shall require applying banks not organized under Federal law to comply with the reserve and capital requirements

and to submit to the examination and regulations prescribed by the organization committee or by the Federal Reserve Board. No applying bank shall be admitted to membership in a Federal reserve bank unless it possesses a paid-up unimpaired capital sufficient to entitle it to become a national banking association in the place where it is situated, under the provisions of the national banking Act.

Any bank becoming a member of a Federal reserve bank under the provisions of this section shall, in addition to the regulations and restrictions hereinbefore provided, be required to conform to the provisions of law imposed on the national banks respecting the limitation of liability which may be incurred by any person, firm, or corporation to such banks, the prohibition against making purchase of or loans on stock of such banks, and the withdrawal or impairment of capital, or the payment of unearned dividends, and to such rules and regulations as the Federal Reserve Board may, in pursuance thereof, prescribe.

Such banks, and the officers, agents, and employees thereof, shall also be subject to the provisions of and to the penalties prescribed by sections fifty-one hundred and ninety-eight, fifty-two hundred, fifty-two hundred and one, fifty-two hundred and eight, and fifty-two hundred and nine of the Revised Statutes. The member banks shall also be required to make report of the conditions and of the payments of dividends to the Comptroller, as provided in sections fifty-two hundred and eleven and fifty-two hundred and twelve of the Revised Statutes, and shall be subject to the penalties prescribed by section fifty-two hundred and thirteen for the failure to make such report.

If at any time it shall appear to the Federal Reserve Board that a member bank has failed to comply with the provisions of this section or the regulations of the Federal Reserve Board, it shall be within the power of the said board, after hearing, to require such bank to surrender its stock in the Federal reserve bank; upon such surrender the Federal reserve bank shall pay the cash-paid subscriptions to the said stock with interest at the rate of one-half of one per centum per month, computed from the last dividend, if earned, not to exceed the book value thereof, less any liability to said Federal reserve bank, except the subscription liability not previously called, which shall be canceled, and said Federal reserve bank shall, upon notice from the Federal Reserve Board, be required to suspend said bank from further privileges of membership, and shall within thirty days of such notice cancel and retire its stock and make payment therefor in the manner herein provided. The Federal Reserve Board may restore membership upon due proof of compliance with the conditions imposed by this section.

FEDERAL RESERVE BOARD

SEC. 10. A Federal Reserve Board is hereby created which shall consist of seven members, including the Secretary of the Treasury and the Comptroller of the Currency, who shall be members ex-officio, and five members appointed by the President of the United

States, by and with the advice and consent of the Senate. In selecting the five appointive members of the Federal Reserve Board not more than one of whom shall be selected from any one Federal reserve district, the President shall have due regard to a fair representation of the different commercial, industrial and geographical divisions of the country. The five members of the Federal Reserve Board appointed by the President and confirmed as aforesaid shall devote their entire time to the business of the Federal Reserve Board and shall each receive an annual salary of $12,000, payable monthly together with actual necessary traveling expenses, and the Comptroller of the Currency, as ex-officio member of the Federal Reserve Board, shall, in addition to the salary now paid him as Comptroller of the Currency, receive the sum of $7,000 annually for his services as a member of said Board.

The members of said Board, the Secretary of the Treasury, the Assistant Secretaries of the Treasury, and the Comptroller of the Currency shall be ineligible during the time they are in office and for two years thereafter to hold any office, position, or employment in any member bank. Of the five members thus appointed by the President at least two shall be persons experienced in banking or finance. One shall be designated by the President to serve for two, one for four, one for six, one for eight, and one for ten years, and thereafter each member so appointed shall serve for a term of ten years unless sooner removed for cause by the President. Of the five persons thus appointed, one shall be designated by the President as governor and one as vice-governor of the Federal Reserve Board. The governor of the Federal Reserve Board, subject to its supervision, shall be the active executive officer. The Secretary of the Treasury may assign offices in the Department of the Treasury for the use of the Federal Reserve Board. Each member of the Federal Reserve Board shall within fifteen days after notice of appointment make and subscribe to the oath of office.

The Federal Reserve Board shall have power to levy semiannually upon the Federal reserve banks, in proportion to their capital stock and surplus, an assessment sufficient to pay its estimated expenses and the salaries of its members and employees for the half year succeeding the levying of such assessment, together with any deficit carried forward from the preceding half year.

The first meeting of the Federal Reserve Board shall be held in Washington, District of Columbia, as soon as may be after the passage of this Act, at a date to be fixed by the Reserve Bank Organization Committee. The Secretary of the Treasury shall be ex-officio chairman of the Federal Reserve Board. No member of the Federal Reserve Board shall be an officer or director of any bank, banking institution, trust company, or Federal reserve bank nor hold stock in any bank, banking institution, or trust company; and before entering upon his duties as a member of the Federal Reserve Board he shall certify under oath to the Secretary of the Treasury that he has complied with this requirement. Whenever a vacancy shall occur, other than by expiration of term, among the five members of the Federal Reserve Board appointed by the President, as above provided, a successor shall be appointed by the President, with the advice

and consent of the Senate, to fill such vacancy, and when appointed he shall hold office for the unexpired term of the member whose place he is selected to fill.

The President shall have power to fill all vacancies that may happen on the Federal Reserve Board during the recess of the Senate, by granting commissions which shall expire thirty days after the next session of the Senate convenes.

Nothing in this Act contained shall be construed as taking away any powers heretofore vested by law in the Secretary of the Treasury which relate to the supervision, management, and control of the Treasury Department and bureaus under such department, and wherever any power vested by this Act in the Federal Reserve Board or the Federal reserve agent appears to conflict with the powers of the Secretary of the Treasury, such powers shall be exercised subject to the supervision and control of the Secretary.

The Federal Reserve Board shall annually make a full report of its operations to the Speaker of the House of Representatives, who shall cause the same to be printed for the information of the Congress.

Section three hundred and twenty-four of the Revised Statutes of the United States shall be amended so as to read as follows: There shall be in the Department of the Treasury a bureau charged with the execution of all laws passed by Congress relating to the issue and regulation of national currency secured by United States bonds and, under the general supervision of the Federal Reserve Board, of all Federal reserve notes, the chief officer of which bureau shall be called the Comptroller of the Currency and shall perform his duties under the general directions of the Secretary of the Treasury.

SEC. 11. The Federal Reserve Board shall be authorized and empowered:

(a) To examine at its discretion the accounts, books and affairs of each Federal reserve bank and of each member bank and to require such statements and reports as it may deem necessary. The said board shall publish once each week a statement showing the condition of each Federal reserve bank and a consolidated statement for all Federal reserve banks. Such statements shall show in detail the assets and liabilities of the Federal reserve banks, single and combined, and shall furnish full information regarding the character of the money held as reserve and the amount, nature and maturities of the paper and other investments owned or held by Federal reserve banks.

(b) To permit, or, on the affirmative vote of at least five members of the Reserve Board to require Federal reserve banks to rediscount the discounted paper of other Federal reserve banks at rates of interest to be fixed by the Federal Reserve Board.

(c) To suspend for a period not exceeding thirty days, and from time to time to renew such suspension for periods not exceeding fifteen days, any reserve requirement specified in this Act: *Provided*, That it shall establish a graduated tax upon the amounts by which the reserve requirements of this Act may be permitted to fall below the level hereinafter specified: *And provided further*, That when the gold reserve held against Federal reserve notes falls below

forty per centum, the Federal Reserve Board shall establish a graduated tax of not more than one per centum per annum upon such deficiency until the reserve fall to thirty-two and one-half per centum, and when said reserve falls below thirty-two and one-half per centum, a tax at the rate increasingly of not less than one and one-half per centum per annum upon each two and one-half per centum or fraction thereof that such reserve falls below thirty-two and one-half per centum. The tax shall be paid by the reserve bank, but the reserve bank shall add an amount equal to said tax to the rates of interest and discount fixed by the Federal Reserve Board.

(d) To supervise and regulate through the bureau under the charge of the Comptroller of the Currency the issue and retirement of Federal reserve notes, and to prescribe rules and regulations under which such notes may be delivered by the Comptroller to the Federal reserve agents applying therefor.

(e) To add to the number of cities classified as reserve and central reserve cities under existing law in which national banking associations are subject to the reserve requirements set forth in section twenty of this Act; or to reclassify existing reserve and central reserve cities or to terminate their designation as such.

(f) To suspend or remove any officer or director of any Federal reserve bank, the cause of such removal to be forthwith communicated in writing by the Federal Reserve Board to the removed officer or director and to said bank.

(g) To require the writing off of doubtful or worthless assets upon the books and balance sheets of Federal reserve banks.

(h) To suspend, for the violation of any of the provisions of this Act, the operations of any Federal reserve bank, to take possession thereof, administer the same during the period of suspension, and, when deemed advisable, to liquidate or reorganize such bank.

(i) To require bonds of Federal reserve agents, to make regulations for the safeguarding of all collateral, bonds, Federal reserve notes, money or property of any kind deposited in the hands of such agents, and said board shall perform the duties, functions, or services specified in this Act, and make all rules and regulations necessary to enable said board effectively to perform the same.

(j) To exercise general supervision over said Federal reserve banks.

(k) To grant by special permit to national banks applying therefor, when not in contravention of State or local law, the right to act as trustee, executor, administrator, or registrar of stocks and bonds under such rules and regulations as the said board may prescribe.

(l) To employ such attorneys, experts, assistants, clerks or other employees as may be deemed necessary to conduct the business of the board. All salaries and fees shall be fixed in advance by said board and shall be paid in the same manner as the salaries of the members of said board. All such attorneys, experts, assistants, clerks, and other employees shall be appointed without regard to the provisions of the Act of January sixteenth, eighteen hundred and eighty-three (volume twenty-two, United States Statutes at Large, page four hundred and three), and amendments thereto, or any rule or regulation made in pursuance thereof: *Provided*, That

nothing herein shall prevent the President from placing said employees in the classified service.

FEDERAL ADVISORY COUNCIL

SEC. 12. There is hereby created a Federal Advisory Council, which shall consist of as many members as there are Federal reserve districts. Each Federal reserve bank by its board of directors shall annually select from its own Federal reserve district one member of said council, who shall receive such compensation and allowances as may be fixed by his board of directors subject to the approval of the Federal Reserve Board. The meetings of said advisory council shall be held at Washington, District of Columbia, at least four times each year, and oftener if called by the Federal Reserve Board. The council may in addition to the meetings above provided for hold such other meetings in Washington, District of Columbia, or elsewhere, as it may deem necessary, may select its own officers and adopt its own methods of procedure, and a majority of its members shall constitute a quorum for the transaction of business. Vacancies in the council shall be filled by the respective reserve banks, and members selected to fill vacancies, shall serve for the unexpired term.

The Federal Advisory Council shall have power, by itself or through its officers, (1) to confer directly with the Federal Reserve Board on general business conditions; (2) to make oral or written representations concerning matters within the jurisdiction of said board; (3) to call for information and to make recommendations in regard to discount rates, rediscount business, note issues, reserve conditions in the various districts, the purchase and sale of gold or securities by reserve banks, open-market operations by said banks, and the general affairs of the reserve banking system.

POWERS OF FEDERAL RESERVE BANKS

SEC. 13. Any Federal reserve bank may receive from any of its member banks, and from the United States, deposits of current funds in lawful money, national-bank notes, Federal reserve notes, or checks and drafts upon solvent member banks, payable upon presentation; or, solely for exchange purposes, may receive from other Federal reserve banks deposits of current funds in lawful money, national-bank notes, or checks and drafts upon solvent member or other Federal reserve banks, payable upon presentation.

Upon the indorsement of any of its member banks, with a waiver of demand, notice and protest by such bank, any Federal reserve bank may discount notes, drafts, and bills of exchange arising out of actual commercial transactions; that is, notes, drafts, and bills of exchange issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been used, or are to be used, for such purposes, the Federal Reserve Board to have the right to determine or define the character of the paper thus eligible for discount, within the meaning of this Act. Nothing in this Act contained shall be construed to prohibit such notes, drafts,

and bills of exchange, secured by staple agricultural products, or other goods, wares, or merchandise from being eligible for such discount; but such definition shall not include notes, drafts, or bills covering merely investments or issued or drawn for the purpose of carrying or trading in stocks, bonds, or other investment securities, except bonds and notes of the Government of the United States. Notes, drafts, and bills admitted to discount under the terms of this paragraph must have a maturity at the time of discount of not more than ninety days: *Provided*, That notes, drafts, and bills drawn or issued for agricultural purposes or based on live stock and having a maturity not exceeding six months may be discounted in an amount to be limited to a percentage of the capital of the Federal reserve bank, to be ascertained and fixed by the Federal Reserve Board.

Any Federal reserve bank may discount acceptances which are based on the importation or exportation of goods and which have a maturity at time of discount of not more than three months, and indorsed by at least one member bank. The amount of acceptances so discounted shall at no time exceed one-half the paid-up capital stock and surplus of the bank for which the rediscounts are made.

The aggregate of such notes and bills bearing the signature or indorsement of any one person, company, firm, or corporation rediscounted for any one bank shall at no time exceed ten per centum of the unimpaired capital and surplus of said bank; but this restriction shall not apply to the discount of bills of exchange drawn in good faith against actually existing values.

Any member bank may accept drafts or bills of exchange drawn upon it and growing out of transactions involving the importation or exportation of goods having not more than six months' sight to run; but no bank shall accept such bills to an amount equal at any time in the aggregate to more than one-half its paid-up capital stock and surplus.

Section fifty-two hundred and two of the Revised Statutes of the United States is hereby amended so as to read as follows: No national banking association shall at any time be indebted, or in any way liable, to an amount exceeding the amount of its capital stock at such time actually paid in and remaining undiminished by losses or otherwise, except on account of demands of the nature following:

First. Notes of circulation.

Second. Moneys deposited with or collected by the association.

Third. Bills of exchange or drafts drawn against money actually on deposit to the credit of the association, or due thereto.

Fourth. Liabilities to the stockholders of the association for dividends and reserve profits.

Fifth. Liabilities incurred under the provisions of the Federal Reserve Act.

The rediscount by any Federal reserve bank of any bills receivable and of domestic and foreign bills of exchange, and of acceptances authorized by this Act, shall be subject to such restrictions, limitations, and regulations as may be imposed by the Federal Reserve Board.

OPEN-MARKET OPERATIONS

SEC. 14. Any Federal reserve bank may, under rules and regulations prescribed by the Federal Reserve Board, purchase and sell in the open market, at home or abroad, either from or to domestic or foreign banks, firms, corporations, or individuals, cable transfers and bankers' acceptances and bills of exchange of the kinds and maturities by this Act made eligible for rediscount, with or without the indorsement of a member bank.

Every Federal reserve bank shall have power:

(a) To deal in gold coin and bullion at home or abroad, to make loans thereon, exchange Federal reserve notes for gold, gold coin, or gold certificates, and to contract for loans of gold coin or bullion, giving therefor, when necessary, acceptable security, including the hypothecation of United States bonds or other securities which Federal reserve banks are authorized to hold;

(b) To buy and sell, at home or abroad, bonds and notes of the United States, and bills, notes, revenue bonds, and warrants with a maturity from date of purchase of not exceeding six months, issued in anticipation of the collection of taxes or in anticipation of the receipt of assured revenues by any State, county, district, political subdivision, or municipality in the continental United States, including irrigation, drainage and reclamation districts, such purchases to be made in accordance with rules and regulations prescribed by the Federal Reserve Board;

(c) To purchase from member banks and to sell, with or without its indorsement, bills of exchange arising out of commercial transactions, as hereinbefore defined;

(d) To establish from time to time, subject to review and determination of the Federal Reserve Board, rates of discount to be charged by the Federal reserve bank for each class of paper, which shall be fixed with a view of accommodating commerce and business;

(e) To establish accounts with other Federal reserve banks for exchange purposes and, with the consent of the Federal Reserve Board, to open and maintain banking accounts in foreign countries, appoint correspondents, and establish agencies in such countries wheresoever it may deem best for the purpose of purchasing, selling, and collecting bills of exchange, and to buy and sell with or without its indorsement, through such correspondents or agencies, bills of exchange arising out of actual commercial transactions which have not more than ninety days to run and which bear the signature of two or more responsible parties.

GOVERNMENT DEPOSITS

SEC. 15. The moneys held in the general fund of the Treasury, except the five per centum fund for the redemption of outstanding national-bank notes and the funds provided in this Act for the redemption of Federal reserve notes may, upon the direction of the Secretary of the Treasury, be deposited in Federal reserve banks, which banks, when required by the Secretary of the Treasury, shall act as fiscal agents of the United States; and the revenues of the

Government or any part thereof may be deposited in such banks, and disbursements may be made by checks drawn against such deposits.

No public funds of the Philippine Islands, or of the postal savings, or any Government funds, shall be deposited in the continental United States in any bank not belonging to the system established by this Act: *Provided, however*, That nothing in this Act shall be construed to deny the right of the Secretary of the Treasury to use member banks as depositories.

NOTE ISSUES

SEC. 16. Federal reserve notes, to be issued at the discretion of the Federal Reserve Board for the purpose of making advances to Federal reserve banks through the Federal reserve agents as hereinafter set forth and for no other purpose, are hereby authorized. The said notes shall be obligations of the United States and shall be receivable by all national and member banks and Federal reserve banks and for all taxes, customs, and other public dues. They shall be redeemed in gold on demand at the Treasury Department of the United States, in the city of Washington, District of Columbia, or in gold or lawful money at any Federal reserve bank.

Any Federal reserve bank may make application to the local Federal reserve agent for such amount of the Federal reserve notes hereinbefore provided for as it may require. Such application shall be accompanied with a tender to the local Federal reserve agent of collateral in amount equal to the sum of the Federal reserve notes thus applied for and issued pursuant to such application. The collateral security thus offered shall be notes and bills, accepted for rediscount under the provisions of section thirteen of this Act, and the Federal reserve agent shall each day notify the Federal Reserve Board of all issues and withdrawals of Federal reserve notes to and by the Federal reserve bank to which he is accredited. The said Federal Reserve Board may at any time call upon a Federal reserve bank for additional security to protect the Federal reserve notes issued to it.

Every Federal reserve bank shall maintain reserves in gold or lawful money of not less than thirty-five per centum against its deposits and reserves in gold of not less than forty per centum against its Federal reserve notes in actual circulation, and not offset by gold or lawful money deposited with the Federal reserve agent. Notes so paid out shall bear upon their faces a distinctive letter and serial number, which shall be assigned by the Federal Reserve Board to each Federal reserve bank. Whenever Federal reserve notes issued through one Federal reserve bank shall be received by another Federal reserve bank they shall be promptly returned for credit or redemption to the Federal reserve bank through which they were originally issued. No Federal reserve bank shall pay out notes issued through another under penalty of a tax of ten per centum upon the face value of notes so paid out. Notes presented for redemption at the Treasury of the United States shall be paid out of the redemption fund and returned to the Federal reserve banks

through which they were originally issued, and thereupon such Federal reserve bank shall, upon demand of the Secretary of the Treasury, reimburse such redemption fund in lawful money or, if such Federal reserve notes have been redeemed by the Treasurer in gold or gold certificates, then such funds shall be reimbursed to the extent deemed necessary by the Secretary of the Treasury in gold or gold certificates, and such Federal reserve bank shall, so long as any of its Federal reserve notes remain outstanding, maintain with the Treasurer in gold an amount sufficient in the judgment of the Secretary to provide for all redemptions to be made by the Treasurer. Federal reserve notes received by the Treasury, otherwise than for redemption, may be exchanged for gold out of the redemption fund hereinafter provided and returned to the reserve bank through which they were originally issued, or they may be returned to such bank for the credit of the United States. Federal reserve notes unfit for circulation shall be returned by the Federal reserve agents to the Comptroller of the Currency for cancelation and destruction.

The Federal Reserve Board shall require each Federal reserve bank to maintain on deposit in the Treasury of the United States a sum in gold sufficient in the judgment of the Secretary of the Treasury for the redemption of the Federal reserve notes issued to such bank, but in no event less than five per centum; but such deposit of gold shall be counted and included as part of the forty per centum reserve hereinbefore required. The board shall have the right, acting through the Federal reserve agent, to grant in whole or in part or to reject entirely the application of any Federal reserve bank for Federal reserve notes; but to the extent that such application may be granted the Federal Reserve Board, shall, through its local Federal reserve agent, supply Federal reserve notes to the bank so applying, and such bank shall be charged with the amount of such notes and shall pay such rate of interest on said amount as may be established by the Federal Reserve Board, and the amount of such Federal reserve notes so issued to any such bank shall, upon delivery, together with such notes of such Federal reserve bank as may be issued under section eighteen of this Act upon security of United States two per centum Government bonds, become a first and paramount lien on all the assets of such bank.

Any Federal reserve bank may at any time reduce its liability for outstanding Federal reserve notes by depositing, with the Federal reserve agent, its Federal reserve notes, gold, gold certificates, or lawful money of the United States. Federal reserve notes so deposited shall not be reissued, except upon compliance with the conditions of an original issue.

The Federal reserve agent shall hold such gold, gold certificates, or lawful money available exclusively for exchange for the outstanding Federal reserve notes when offered by the reserve bank of which he is a director. Upon the request of the Secretary of the Treasury the Federal Reserve Board shall require the Federal reserve agent to transmit so much of said gold to the Treasury of the United States as may be required for the exclusive purpose of the redemption of such notes.

Any Federal reserve bank may at its discretion withdraw collateral deposited with the local Federal reserve agent for the protection of its Federal reserve notes deposited with it and shall at the same time substitute therefor other like collateral of equal amount with the approval of the Federal reserve agent under regulations to be prescribed by the Federal Reserve Board.

In order to furnish suitable notes for circulation as Federal reserve notes, the Comptroller of the Currency shall, under the direction of the Secretary of the Treasury, cause plates and dies to be engraved in the best manner to guard against counterfeits and fraudulent alterations, and shall have printed therefrom and numbered such quantities of such notes of the denominations of $5, $10, $20, $50, $100, as may be required to supply the Federal reserve banks. Such notes shall be in form and tenor as directed by the Secretary of the Treasury under the provisions of this Act and shall bear the distinctive numbers of the several Federal reserve banks through which they are issued.

When such notes have been prepared, they shall be deposited in the Treasury, or in the subtreasury or mint of the United States nearest the place of business of each Federal reserve bank and shall be held for the use of such bank subject to the order of the Comptroller of the Currency for their delivery, as provided by this Act.

The plates and dies to be procured by the Comptroller of the Currency for the printing of such circulating notes shall remain under his control and direction, and the expenses necessarily incurred in executing the laws relating to the procuring of such notes, and all other expenses incidental to their issue and retirement, shall be paid by the Federal reserve banks, and the Federal Reserve Board shall include in its estimate of expenses levied against the Federal reserve banks a sufficient amount to cover the expenses herein provided for.

The examination of plates, dies, bed pieces, and so forth, and regulations relating to such examination of plates, dies, and so forth, of national-bank notes provided for in section fifty-one hundred and seventy-four Revised Statutes, is hereby extended to include notes herein provided for.

Any appropriation heretofore made out of the general funds of the Treasury for engraving plates and dies, the purchase of distinctive paper, or to cover any other expense in connection with the printing of national-bank notes or notes provided for by the Act of May thirtieth, nineteen hundred and eight, and any distinctive paper that may be on hand at the time of the passage of this Act may be used in the discretion of the Secretary for the purposes of this Act, and should the appropriations heretofore made be insufficient to meet the requirements of this Act in addition to circulating notes provided for by existing law, the Secretary is hereby authorized to use so much of any funds in the Treasury not otherwise appropriated for the purpose of furnishing the notes aforesaid: *Provided, however*, That nothing in this section contained shall be construed as exempting national banks or Federal reserve banks from their liability to reimburse the United States for any expenses incurred in printing and issuing circulating notes.

Every Federal reserve bank shall receive on deposit at par from member banks or from Federal reserve banks checks and drafts drawn upon any of its depositors, and when remitted by a Federal reserve bank, checks and drafts drawn by any depositor in any other Federal reserve bank or member bank upon funds to the credit of said depositor in said reserve bank or member bank. Nothing herein contained shall be construed as prohibiting a member bank from charging its actual expense incurred in collecting and remitting funds, or for exchange sold to its patrons. The Federal Reserve Board shall, by rule, fix the charges to be collected by the member banks from its patrons whose checks are cleared through the Federal reserve bank and the charge which may be imposed for the service of clearing or collection rendered by the Federal reserve bank.

The Federal Reserve Board shall make and promulgate from time to time regulations governing the transfer of funds and charges therefor among Federal reserve banks and their branches, and may at its discretion exercise the functions of a clearing house for such Federal reserve banks, or may designate a Federal reserve bank to exercise such functions, and may also require each such bank to exercise the functions of a clearing house for its member banks.

SEC. 17. So much of the provisions of section fifty-one hundred and fifty-nine of the Revised Statutes of the United States, and section four of the Act of June twentieth, eighteen hundred and seventy-four, and section eight of the Act of July twelfth, eighteen hundred and eighty-two, and of any other provisions of existing statutes as require that before any national banking associations shall be authorized to commence banking business it shall transfer and deliver to the Treasurer of the United States a stated amount of United States registered bonds is hereby repealed.

REFUNDING BONDS

SEC. 18. After two years from the passage of this Act, and at any time during a period of twenty years thereafter, any member bank desiring to retire the whole or any part of its circulating notes, may file with the Treasurer of the United States an application to sell for its account, at par and accrued interest, United States bonds securing circulation to be retired.

The Treasurer shall, at the end of each quarterly period, furnish the Federal Reserve Board with a list of such applications, and the Federal Reserve Board may, in its discretion, require the Federal reserve banks to purchase such bonds from the banks whose applications have been filed with the Treasurer at least ten days before the end of any quarterly period at which the Federal Reserve Board may direct the purchase to be made: *Provided*, That Federal reserve banks shall not be permitted to purchase an amount to exceed $25,000,000 of such bonds in any one year, and which amount shall include bonds acquired under section four of this Act by the Federal reserve bank.

Provided further, That the Federal Reserve Board shall allot to each Federal reserve bank such proportion of such bonds as the

capital and surplus of such bank shall bear to the aggregate capital and surplus of all the Federal reserve banks.

Upon notice from the Treasurer of the amount of bonds so sold for its account, each member bank shall duly assign and transfer, in writing, such bonds to the Federal reserve bank purchasing the same, and such Federal reserve bank shall, thereupon, deposit lawful money with the Treasurer of the United States for the purchase price of such bonds, and the Treasurer shall pay to the member bank selling such bonds any balance due after deducting a sufficient sum to redeem its outstanding notes secured by such bonds, which notes shall be canceled and permanently retired when redeemed.

The Federal reserve banks purchasing such bonds shall be permitted to take out an amount of circulating notes equal to the par value of such bonds.

Upon the deposit with the Treasurer of the United States of bonds so purchased, or any bonds with the circulating privilege acquired under section four of this Act, any Federal reserve bank making such deposit in the manner provided by existing law, shall be entitled to receive from the Comptroller of the Currency circulating notes in blank, registered and countersigned as provided by law equal in amount to the par value of the bonds so deposited. Such notes shall be the obligations of the Federal reserve bank procuring the same, and shall be in form prescribed by the Secretary of the Treasury, and to the same tenor and effect as national-bank notes now provided by law. They shall be issued and redeemed under the same terms and conditions as national-bank notes except that they shall not be limited to the amount of the capital stock of the Federal reserve bank issuing them.

Upon application of any Federal reserve bank, approved by the Federal Reserve Board, the Secretary of the Treasury may issue, in exchange for United States two per centum gold bonds bearing the circulation privilege, but against which no circulation is outstanding, one-year gold notes of the United States without the circulation privilege to an amount not to exceed one-half of the two per centum bonds so tendered for exchange, and thirty-year three per centum gold bonds without the circulation privilege for the remainder of the two per centum bonds so tendered: *Provided*, That at the time of such exchange the Federal reserve bank obtaining such one-year gold notes shall enter into an obligation with the Secretary of the Treasury binding itself to purchase from the United States for gold at the maturity of such one-year notes, an amount equal to those delivered in exchange for such bonds, if so requested by the Secretary, and at each maturity of one-year notes so purchased by such Federal reserve bank, to purchase from the United States such an amount of one-year notes as the Secretary may tender to such bank, not to exceed the amount issued to such bank in the first instance, in exchange for the two per centum United States gold bonds; said obligation to purchase at maturity such notes shall continue in force for a period not to exceed thirty years.

For the purpose of making the exchange herein provided for, the Secretary of the Treasury is authorized to issue at par Treasury notes in coupon or registered form as he may prescribe in denomi-

nations of one hundred dollars, or any multiple thereof, bearing interest at the rate of three per centum per annum, payable quarterly, such Treasury notes to be payable not more than one year from the date of their issue in gold coin of the present standard value, and to be exempt as to principal and interest from the payment of all taxes and duties of the United States except as provided by this Act, as well as from taxes in any form by or under State, municipal, or local authorities. And for the same purpose, the Secretary is authorized and empowered to issue United States gold bonds at par, bearing three per centum interest payable thirty years from date of issue, such bonds to be of the same general tenor and effect and to be issued under the same general terms and conditions as the United States three per centum bonds without the circulation privilege now issued and outstanding.

Upon application of any Federal reserve bank, approved by the Federal Reserve Board, the Secretary may issue at par such three per centum bonds in exchange for the one-year gold notes herein provided for.

BANK RESERVES

SEC. 19. Demand deposits within the meaning of this Act shall comprise all deposits payable within thirty days, and time deposits shall comprise all deposits payable after thirty days, and all savings accounts and certificates of deposit which are subject to not less than thirty days' notice before payment.

When the Secretary of the Treasury shall have officially announced, in such manner as he may elect, the establishment of a Federal reserve bank in any district, every subscribing member bank shall establish and maintain reserves as follows:

(a) A bank not in a reserve or central reserve city as now or hereafter defined shall hold and maintain reserves equal to twelve per centum of the aggregate amount of its demand deposits and five per centum of its time deposits, as follows:

In its vaults for a period of thirty-six months after said date five-twelfths thereof and permanently thereafter four-twelfths.

In the Federal reserve bank of its district, for a period of twelve months after said date, two-twelfths, and for each succeeding six months an additional one-twelfth, until five-twelfths have been so deposited, which shall be the amount permanently required.

For a period of thirty-six months after said date the balance of the reserves may be held in its own vaults, or in the Federal reserve bank, or in national banks in reserve or central reserve cities as now defined by law.

After said thirty-six months' period said reserves, other than those hereinbefore required to be held in the vaults of the member bank and in the Federal reserve bank, shall be held in the vaults of the member bank or in the Federal reserve bank, or in both, at the option of the member bank.

(b) A bank in a reserve city, as now or hereafter defined, shall hold and maintain reserves equal to fifteen per centum of the aggregate amount of its demand deposits and five per centum of its time deposits, as follows:

In its vaults for a period of thirty-six months after said date six-fifteenths thereof, and permanently thereafter five-fifteenths.

In the Federal reserve bank of its district for a period of twelve months after the date aforesaid at least three-fifteenths, and for each succeeding six months an additional one-fifteenth, until six-fifteenths have been so deposited, which shall be the amount permanently required.

For a period of thirty-six months after said date the balance of the reserves may be held in its own vaults, or in the Federal reserve bank, or in national banks in reserve or central reserve cities as now defined by law.

After said thirty-six months' period all of said reserves, except those hereinbefore required to be held permanently in the vaults of the member bank and in the Federal reserve bank, shall be held in its vaults or in the Federal reserve bank, or in both, at the option of the member bank.

(c) A bank in a central reserve city, as now or hereafter defined, shall hold and maintain a reserve equal to eighteen per centum of the aggregate amount of its demand deposits and five per centum of its time deposits, as follows:

In its vaults six-eighteenths thereof.

In the Federal reserve bank seven-eighteenths.

The balance of said reserves shall be held in its own vaults or in the Federal reserve bank, at its option.

Any Federal reserve bank may receive from the member banks as reserves, not exceeding one-half of each installment, eligible paper as described in section fourteen properly indorsed and acceptable to the said reserve bank.

If a State bank or trust company is required by the law of its State to keep its reserves either in its own vaults or with another State bank or trust company, such reserve deposits so kept in such State bank or trust company shall be construed, within the meaning of this section, as if they were reserve deposits in a national bank in a reserve or central reserve city for a period of three years after the Secretary of the Treasury shall have officially announced the establishment of a Federal reserve bank in the district in which such State bank or trust company is situate. Except as thus provided, no member bank shall keep on deposit with any nonmember bank a sum in excess of ten per centum of its own paid-up capital and surplus. No member bank shall act as the medium or agent of a nonmember bank in applying for or receiving discounts from a Federal reserve bank under the provisions of this Act except by permission of the Federal Reserve Board.

The reserve carried by a member bank with a Federal reserve bank may, under the regulations and subject to such penalties as may be prescribed by the Federal Reserve Board, be checked against and withdrawn by such member bank for the purpose of meeting existing liabilities: *Provided, however*, That no bank shall at any time make new loans or shall pay any dividends unless and until the total reserve required by law is fully restored.

In estimating the reserves required by this Act, the net balance of amounts due to and from other banks shall be taken as the

basis for ascertaining the deposits against which reserves shall be determined. Balances in reserve banks due to member banks shall, to the extent herein provided, be counted as reserves.

National banks located in Alaska or outside the continental United States may remain nonmember banks, and shall in that event maintain reserves and comply with all the conditions now provided by law regulating them; or said banks, except in the Philippine Islands, may, with the consent of the Reserve Board, become member banks of any one of the reserve districts, and shall, in that event, take stock, maintain reserves, and be subject to all the other provisions of this Act.

SEC. 20. So much of sections two and three of the Act of June twentieth, eighteen hundred and seventy-four, entitled "An Act fixing the amount of United States notes, providing for a redistribution of the national-bank currency, and for other purposes," as provides that the fund deposited by any national banking association with the Treasurer of the United States for the redemption of its notes shall be counted as a part of its lawful reserve as provided in the Act aforesaid, is hereby repealed. And from and after the passage of this Act such fund of five per centum shall in no case be counted by any national banking association as a part of its lawful reserve.

BANK EXAMINATIONS

SEC. 21. Section fifty-two hundred and forty, United States Revised Statutes, is amended to read as follows:

The Comptroller of the Currency, with the approval of the Secretary of the Treasury, shall appoint examiners who shall examine every member bank at least twice in each calendar year and oftener if considered necessary: *Provided, however,* That the Federal Reserve Board may authorize examination by the State authorities to be accepted in the case of State banks and trust companies and may at any time direct the holding of a special examination of State banks or trust companies that are stockholders in any Federal reserve bank. The examiner making the examination of any national bank, or of any other member bank, shall have power to make a thorough examination of all the affairs of the bank and in doing so he shall have power to administer oaths and to examine any of the officers and agents thereof under oath and shall make a full and detailed report of the condition of said bank to the Comptroller of the Currency.

The Federal Reserve Board, upon the recommendation of the Comptroller of the Currency, shall fix the salaries of all bank examiners and make report thereof to Congress. The expense of the examinations herein provided for shall be assessed by the Comptroller of the Currency upon the banks examined in proportion to assets or resources held by the banks upon the dates of examination of the various banks.

In addition to the examinations made and conducted by the Comptroller of the Currency, every Federal reserve bank may, with the approval of the Federal reserve agent or the Federal Reserve Board, provide for special examination of member banks within its district.

The expense of such examinations shall be borne by the bank examined. Such examinations shall be so conducted as to inform the Federal reserve bank of the condition of its member banks and of the lines of credit which are being extended by them. Every Federal reserve bank shall at all times furnish to the Federal Reserve Board such information as may be demanded concerning the condition of any member bank within the district of the said Federal reserve bank.

No bank shall be subject to any visitatorial powers other than such as are authorized by law, or vested in the courts of justice or such as shall be or shall have been exercised or directed by Congress, or by either House thereof or by any committee of Congress or of either House duly authorized.

The Federal Reserve Board shall, at least once each year, order an examination of each Federal reserve bank, and upon joint application of ten member banks the Federal Reserve Board shall order a special examination and report of the condition of any Federal reserve bank.

SEC. 22. No member bank or any officer, director, or employee thereof shall hereafter make any loan or grant any gratuity to any bank examiner. Any bank officer, director, or employee violating this provision shall be deemed guilty of a misdemeanor and shall be imprisoned not exceeding one year or fined not more than $5,000, or both; and may be fined a further sum equal to the money so loaned or gratuity given. Any examiner accepting a loan or gratuity from any bank examined by him or from an officer, director, or employee thereof shall be deemed guilty of a misdemeanor and shall be imprisoned not exceeding one year or fined not more than $5,000, or both; and may be fined a further sum equal to the money so loaned or gratuity given; and shall forever thereafter be disqualified from holding office as a national-bank examiner. No national-bank examiner shall perform any other service for compensation while holding such office for any bank or officer, director, or employee thereof.

Other than the usual salary or director's fee paid to any officer, director, or employee of a member bank and other than a reasonable fee paid by said bank to such officer, director, or employee for services rendered to such bank, no officer, director, employee, or attorney of a member bank shall be a beneficiary of or receive, directly or indirectly, any fee, commission, gift, or other consideration for or in connection with any transaction or business of the bank. No examiner, public or private, shall disclose the names of borrowers or the collateral for loans of a member bank to other than the proper officers of such bank without first having obtained the express permission in writing from the Comptroller of the Currency, or from the board of directors of such bank, except when ordered to do so by a court of competent jurisdiction, or by direction of the Congress of the United States, or of either House thereof, or any committee of Congress or of either House duly authorized. Any person violating any provision of this section shall be punished by a fine of not exceeding $5,000 or by imprisonment not exceeding one year, or both.

Except as provided in existing laws, this provision shall not take effect until sixty days after the passage of this Act.

SEC. 23. The stockholders of every national banking association

shall be held individually responsible for all contracts, debts, and engagements of such association, each to the amount of his stock therein, at the par value thereof in addition to the amount invested in such stock. The stockholders in any national banking association who shall have transferred their shares or registered the transfer thereof within sixty days next before the date of the failure of such association to meet its obligations, or with knowledge of such impending failure, shall be liable to the same extent as if they had made no such transfer, to the extent that the subsequent transferee fails to meet such liability; but this provision shall not be construed to affect in any way any recourse which such shareholders might otherwise have against those in whose names such shares are registered at the time of such failure.

LOANS ON FARM LANDS

SEC. 24. Any national banking association not situated in a central reserve city may make loans secured by improved and unencumbered farm land, situated within its Federal reserve district, but no such loan shall be made for a longer time than five years, nor for an amount exceeding fifty per centum of the actual value of the property offered as security. Any such bank may make such loans in an aggregate sum equal to twenty-five per centum of its capital and surplus or to one-third of its time deposits and such banks may continue hereafter as heretofore to receive time deposits and to pay interest on the same.

The Federal Reserve Board shall have power from time to time to add to the list of cities in which national banks shall not be permitted to make loans secured upon real estate in the manner described in this section.

FOREIGN BRANCHES

SEC. 25. Any national banking association possessing a capital and surplus of $1,000,000 or more may file application with the Federal Reserve Board, upon such conditions and under such regulations as may be prescribed by the said board, for the purpose of securing authority to establish branches in foreign countries or dependencies of the United States for the furtherance of the foreign commerce of the United States, and to act, if required to do so, as fiscal agents of the United States. Such application shall specify, in addition to the name and capital of the banking association filing it, the place or places where the banking operations proposed are to be carried on, and the amount of capital set aside for the conduct of its foreign business. The Federal Reserve Board shall have power to approve or to reject such application if, in its judgment, the amount of capital proposed to be set aside for the conduct of foreign business is inadequate, or if for other reasons the granting of such application is deemed inexpedient.

Every national banking association which shall receive authority to establish foreign branches shall be required at all times to furnish

information concerning the condition of such branches to the Comptroller of the Currency upon demand, and the Federal Reserve Board may order special examinations of the said foreign branches at such time or times as it may deem best. Every such national banking association shall conduct the accounts of each foreign branch independently of the accounts of other foreign branches established by it and of its home office, and shall at the end of each fiscal period transfer to its general ledger the profit or loss accruing at each branch as a separate item.

SEC. 26. All provisions of law inconsistent with or superseded by any of the provisions of this Act are to that extent and to that extent only hereby repealed: *Provided*, Nothing in this Act contained shall be construed to repeal the parity provision or provisions contained in an Act approved March fourteenth, nineteen hundred entitled "An Act to define and fix the standard of value, to maintain the parity of all forms of money issued or coined by the United States, to refund the public debt, and for other purposes," and the Secretary of the Treasury may for the purpose of maintaining such parity and to strengthen the gold reserve, borrow gold on the security of United States bonds authorized by section two of the Act last referred to or for one-year gold notes bearing interest at a rate of not to exceed three per centum per annum, or sell the same if necessary to obtain gold. When the funds of the Treasury on hand justify, he may purchase and retire such outstanding bonds and notes.

SEC. 27. The provisions of the Act of May thirtieth, nineteen hundred and eight, authorizing national currency associations, the issue of additional national-bank circulation, and creating a National Monetary Commission, which expires by limitation under the terms of such Act on the thirtieth day of June, nineteen hundred and fourteen, are hereby extended to June thirtieth, nineteen hundred and fifteen, and sections fifty-one hundred and fifty-three, fifty-one hundred and seventy-two, fifty-one hundred and ninety-one, and fifty-two hundred and fourteen of the Revised Statutes of the United States, which were amended by the Act of May thirtieth, nineteen hundred and eight, are hereby reenacted to read as such sections read prior to May thirtieth, nineteen hundred and eight, subject to such amendments or modifications as are prescribed in this Act: *Provided, however*, That section nine of the Act first referred to in this section is hereby amended so as to change the tax rates fixed in said Act by making the portion applicable thereto read as follows:

National banking associations having circulating notes secured otherwise than by bonds of the United States, shall pay for the first three months a tax at the rate of three per centum per annum upon the average amount of such of their notes in circulation as are based upon the deposit of such securities, and afterwards an additional tax rate of one-half of one per centum per annum for each month until a tax of six per centum per annum is reached, and thereafter such tax of six per centum per annum upon the average amount of such notes.

SEC. 28. Section fifty-one hundred and forty-three of the Re-

vised Statutes is hereby amended and reenacted to read as follows: Any association formed under this title may, by the vote of shareholders owning two-thirds of its capital stock, reduce its capital to any sum not below the amount required by this title to authorize the formation of associations; but no such reduction shall be allowable which will reduce the capital of the association below the amount required for its outstanding circulation, nor shall any reduction be made until the amount of the proposed reduction has been reported to the Comptroller of the Currency and such reduction has been approved by the said Comptroller of the Currency and by the Federal Reserve Board, or by the organization committee pending the organization of the Federal Reserve Board.

SEC. 29. If any clause, sentence, paragraph or part of this Act shall for any reason be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, or invalidate the remainder of this Act, but shall be confined in its operation to the clause, sentence, paragraph, or part thereof directly involved in the controversy in which such judgment shall have been rendered.

SEC. 30. The right to amend, alter, or repeal this Act is hereby expressly reserved.

Approved, December 23, 1913.

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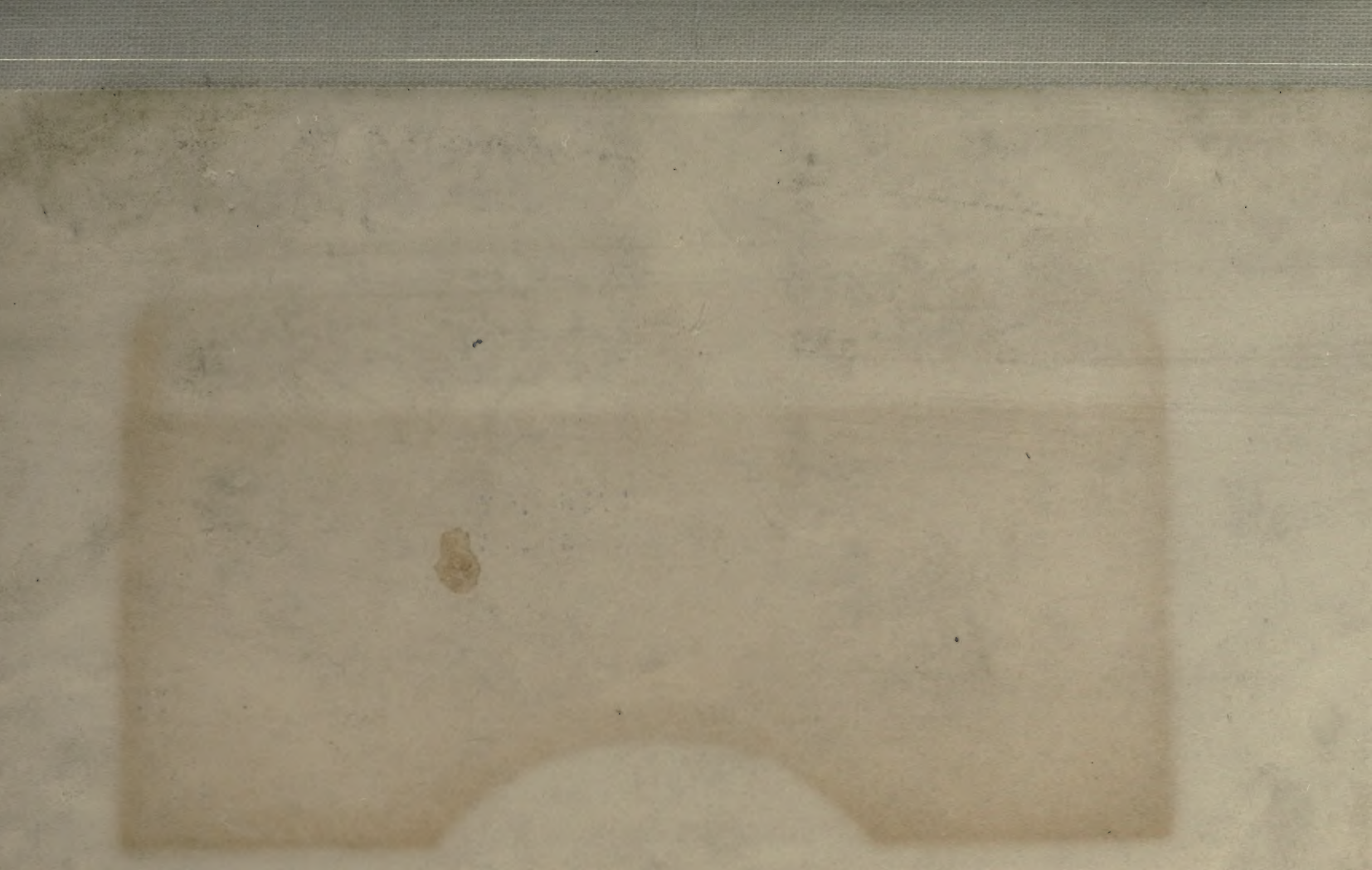

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